

ATTACHMENT 1A**ADD, CHANGE OR DELETE UNIT, PROGRAM REQUIREMENTS, OR ACADEMIC POLICIES**

Complete this form consistent with the instructions in Academic Policy 1622.20. Use the form to add, change, or delete a program or unit or to change program policies. Proposed additions and changes must be consistent with Academic Policies 1100.40 and 1621.10 and any other policies which apply.

SECTION I: Approvals

Department / Program Chair _____	Date Submitted _____	Graduate Council Chair _____	Date _____
College Dean _____	Date _____	Faculty Senate Chair _____	Date _____
Honors College Dean _____	Date _____	Provost _____	Date _____
Core Curriculum Committee _____	Date _____	Board of Trustees Approval/Notification Date _____	
University Course and Programs Committee _____	Date _____	Arkansas Higher Education Coordinating Board Approval/Notification Date _____	
Vice Provost for Distance Education _____ (for on-line programs)	Date _____		

SECTION II: Profile Data - Required Information and Name Change Information

Academic Unit: Major/Field of Study Minor Other Unit _____ Policy

Level: Undergraduate Graduate Law Effective Catalog Year 2014

Program changes are effective with the next available catalog. See Academic Policy Series 1622.20

Current Name **BSA, Food Science (All Concentrations)**

College, School, Division **AFLS**

Department Code **FDSC**

Current Code (6 digit Alpha) **FDSCBS**

Proposed Code (6 digit Alpha) _____

Prior approval from the Office of the Registrar is required.

Interdisciplinary Program

CIP Code **01.1001**

Prior assignment from Office of Institutional Research is required.

Proposed Name _____

When a program name is changed, enrollment of current students reflects the new name.

SECTION III: Add a New Program/Unit

For new program proposals, complete Sections II and VII and use as a cover sheet for a full program proposal as described in 'Criteria and Procedures for Preparing Proposals for New Programs in Arkansas.' ADHE
<http://www.adhe.edu/divisions/academicaffairs/Pages/academicaffairs.aspx>

Program proposal uses courses offered by another academic college, and that college dean's office has been notified. The signature of the dean of that academic college is required here: _____

SECTION IV: Eliminate an Existing Program/Unit

Code/Name _____ Effective Catalog Year _____

No new students admitted to program after Term: ____ Year: _____

Allow students in program to complete under this program until Term: ____ Year: _____

SECTION V: Proposed Changes to an Existing Program or Program Policies

Insert here a statement of the exact changes to be made: **1) Deletion of the requirement of AFLS 1011 Freshman Orientation to be replaced with UNIV 1001 University Perspectives.**

Check if either of these boxes apply and provide the necessary signature:

- Program change proposal adds courses offered by another academic college, and that college dean's office has been notified. The signature of the dean of that academic college is required here: _____
- Program change proposal deletes courses offered by another academic college, and that college dean's office has been notified. The signature of the dean of that academic college is required here: _____

Check all the boxes that apply and complete the required sections of the form:

- Change of Name and Code (Complete only sections I, II, V and VII.)
- Change Course Requirements: (Complete all sections of the form except "Proposed Name" in II, section III, and section IV.)
- Change Delivery Site/Method (Complete all sections of the form except "Proposed Name" in II, section III, and section IV.)
- Change Total Hours (Complete all sections of the form except "Proposed Name" in II, section III, and section IV.)
- Change in Program Policies

SECTION VI: Justification

Justify this change and state its likely effect on any other degree program (including those outside the school or college). Identify any program or program components (other than courses) to be eliminated if this program is implemented. (Program and course change forms must also be submitted for such related changes.)

1) AFLS 1011 Freshman Orientation is no longer being taught and UNIV 1001 is requirement university wide.

SECTION VII: Catalog Text and Format

In the box below, insert the current catalog text which is to be changed, with changes highlighted with the color yellow. Include all proposed changes identified in Section V. Only changes explicitly stated in Section V will be considered for approval by the University Course and Programs Committee, the Graduate Council and the Faculty Senate. If you are proposing a new program, give proposed text with all of the elements listed below. If you are proposing modified text, include these elements as appropriate.

Include the following elements, in order, in the catalog text for proposed undergraduate program(s) or program changes:

- State complete major/program name
- Briefly define or describe the major/program or discipline.
- Identify typical career goals or paths for graduates. (Optional)
- State admission requirements (if any) for entry or entry into upper/advanced level of major/program.
- Identify location in catalog of university, college/school, and department/program requirements which the student must meet in addition to hours in the major, but do not restate these requirements.
- State course requirements in the major and any allied areas, giving number of hours and specific courses; specify electives or elective areas and give numbers of hours and courses in elective pools or categories; identify any other course requirements.
- State any other requirements (required GPA, internship, exit exam, project, thesis, etc.).
- Identify name and requirements for each concentration (if any).
- Specify whether a minor or other program component is allowed or required and provide details.
- State eight-semester plan requirements

For minors, state requirements in terms of hours, required courses, electives, etc.

For graduate program/units, include elements (as needed) parallel to those listed for undergraduate programs above.

For Law School program/units, prepare text consistent with current catalog style.

For centers, prepare text consistent with current catalog style.

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Food science is the application of science and technology to processing, packaging, safety, product invention and distribution of food products. Food science deals with all aspects of food between production and consumption and involves many disciplines, including chemistry, microbiology, nutrition, engineering and sensory science.

Food science prepares students for many interesting, rewarding and challenging professional career opportunities in industry, business, governmental and educational organizations associated with food and food-related products. Due to the diversity and abundance of opportunities available, students graduating with a B.S.A. in food science readily obtain employment or continue studies for graduate school. Additionally, requirements for several pre-professional programs can be fulfilled while meeting requirements for the food science degree.

Students may choose one of three areas of concentration for their degree program: Food Science (FDSC), Food Technology (FDTN) or Food and Culinary Sciences (FDCU). The FDSC concentration at the University of Arkansas is one of only 39 programs in the United States and the only one in Arkansas that is approved by the Institute of Food Technologists. It provides students with a strong background in basic and applied sciences and food chemistry, microbiology, analysis, quality and engineering.

The FDTN concentration provides students interested in food industry careers with an integrated background in food science and business or nutrition. Students in the food technology concentration will complete a minor in agribusiness, general business, or nutrition while completing their core requirements, thus leaving elective hours available for further educational enhancement.

The FDCU concentration provides students interested in product development careers with an interdisciplinary background in food science and culinary arts. This concentration is a partnership program with Northwest Arkansas Community College (NWACC). Students complete their culinary arts courses on the NWACC campus for transfer credit to the UA. These courses can be taken prior to admission to the UA or taken while in residence at the UA. Food and Culinary Sciences concentration will provide students with the course work necessary to be eligible to become a Certified Culinary Scientist through the Research Chef's Association.

Students in each concentration are offered opportunities for research, internships, international experiences and selection of a minor.

Requirements for a Major in Food Science (FDSC)

State minimum core and discipline specific general education requirements:
(Course work that meets state minimum core requirements is in bold.)

Communication (6-12 hours)

ENGL 1013	Composition I (ACTS Equivalency = ENGL 1013) (Sp, Su, Fa) (unless exempt)	3
ENGL 1023	Composition II (ACTS Equivalency = ENGL 1023) (Sp, Su, Fa) (unless exempt)	3

Select two courses from approved list of communication intensive courses (FDCU must choose 3000-4000 level courses) 6

U.S. History and Government (3 hours)

Select one U.S. History Core courses 3

Mathematics and Statistics (9-13 hours)

MATH 1203	College Algebra (ACTS Equivalency = MATH 1103) (Sp, Su, Fa)	3
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FDSC Concentration: 10

MATH 1213	Plane Trigonometry (ACTS Equivalency = MATH 1203) (Sp, Su, Fa)	
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MATH 2554	Calculus I (ACTS Equivalency = MATH 2405) (Sp, Su, Fa)	
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Select one of the following:

STAT 2303	Principles of Statistics (ACTS Equivalency = MATH 2103) (Sp)	
STAT 2023	Biostatistics (Sp)	
AGST 4023	Principles of Experimentation (Fa)	
FDTN Concentration:		6-9
MATH 2043	Survey of Calculus (ACTS Equivalency = MATH 2203) (Sp, Su, Fa)	
MATH 2053	Finite Mathematics (Sp, Su, Fa) (for students declaring Agricultural Business or General Business minors only)	
Select one of the following:		
AGEC 2403	Quantitative Tools for Agribusiness (Sp)	
WCOB 1033	Data Analysis and Interpretation (Sp, Su, Fa)	
STAT 2303	Principles of Statistics (ACTS Equivalency = MATH 2103) (Sp)	
AGST 4023	Principles of Experimentation (Fa)	
FDCU Concentration:		6
MATH 2043	Survey of Calculus (ACTS Equivalency = MATH 2203) (Sp, Su, Fa)	
STAT 2303	Principles of Statistics (ACTS Equivalency = MATH 2103) (Sp)	
Physical and Biological Sciences (20-31 hours)		
BIOL 1543 & BIOL 1541L	Principles of Biology (ACTS Equivalency = BIOL 1014 Lecture) (Sp, Su, Fa) and Principles of Biology Laboratory (ACTS Equivalency = BIOL 1014 Lab) (Sp, Su, Fa)	4
BIOL 2013 & BIOL 2011L	General Microbiology (ACTS Equivalency = BIOL 2004 Lecture) (Sp, Su, Fa) and General Microbiology Laboratory (ACTS Equivalency = BIOL 2004 Lab) (Sp, Su, Fa)	4
CHEM 1103 & CHEM 1101L	University Chemistry I (Su, Fa) and University of Chemistry I Laboratory (Sp, Su, Fa)	4
CHEM 1123 & CHEM 1121L	University Chemistry II (ACTS Equivalency = CHEM 1004 Lecture) (Sp, Su, Fa) and University Chemistry II Laboratory (ACTS Equivalency = CHEM 1004 Lab) (Sp, Su, Fa)	4
Select one of the following concentrations:		
FDSC Concentration:		11-15
CHEM 2613 & CHEM 2611L	Organic Physiological Chemistry (ACTS Equivalency = CHEM 1224 Lecture) (Sp, Su) and Organic Physiological Chemistry Laboratory (ACTS Equivalency = CHEM 1224 Lab) (Sp, Su)	
or CHEM 3603 & CHEM 3601L & CHEM 3613 & CHEM 3611L	Organic Chemistry I (Su, Fa) and Organic Chemistry I Laboratory (Su, Fa) and Organic Chemistry II (Sp, Su) and Organic Chemistry II Laboratory (Sp, Su)	
CHEM 3813	Introduction to Biochemistry (Su, Fa)	
PHYS 2013 & PHYS 2011L	College Physics I (ACTS Equivalency = PHYS 2014 Lecture) (Su, Fa) and College Physics I Laboratory (ACTS Equivalency = PHYS 2014 Lab) (Su, Fa)	
FDTN Concentration:		4-7
CHEM 2613 & CHEM 2611L	Organic Physiological Chemistry (ACTS Equivalency = CHEM 1224 Lecture) (Sp, Su) and Organic Physiological Chemistry Laboratory (ACTS Equivalency = CHEM 1224 Lab) (Sp, Su)	
CHEM 3813	Introduction to Biochemistry (Su, Fa) (for students declaring General Foods and Nutrition minor only)	

FDCU Concentration:		4
CHEM 2613 & CHEM 2611L	Organic Physiological Chemistry (ACTS Equivalency = CHEM 1224 Lecture) (Sp, Su) and Organic Physiological Chemistry Laboratory (ACTS Equivalency = CHEM 1224 Lab) (Sp, Su)	
Fine Arts and Humanities (6 hours)		
Select two Fine Arts, Humanities Core courses		6
Social Sciences (9 hours)		
Select three Social Science Core courses		9
Students declaring Agricultural Business minor must take AGEC 1103 Agricultural Microeconomics and students declaring General Business minor must take ECON 2143 Basic Economics - Theory & Practice, or both ECON 2013 Macroeconomics and ECON 2023 Microeconomics		
FDESC Degree Requirements (27 hours)		
AFLS 101 101 UNIV 1001	Freshman Orientation University Perspectives (Fa)	1
FDSC 1011	Food Science Orientation (Fa)	1
FDSC 1103	Introduction to Food Science (Sp)	3
FDSC 3103	Principles of Food Processing (Even years, Fa)	3
FDSC 3202	Introduction to Food Law (Even years, Sp)	2
FDSC 4114	Food Analysis (Even years, Sp)	4
FDSC 4304	Food Chemistry (Odd years, Fa)	4
FDSC 431V	Internship in Food Science (Sp, Su, Fa)	3
FDSC 4413	Sensory Evaluation of Food (Odd years, Fa)	3
FDSC 4713	Food Product and Process Development (Odd years, Sp)	3
General Electives (9-19 hours)		9-19
Additional Requirements for Food Science Concentration (10 hours)		
HESC 1213	Fundamentals of Nutrition (Sp, Fa)	3
FDSC 4122 & FDSC 4121L	Food Microbiology (Sp) and Food Microbiology Lab (Sp)	3
FDSC 4754	Engineering Principles of Food Processing (Odd years, Sp)	4
Additional Requirements for Food Technology Concentration (18-21 hours)		
Select one of the following:		3
FDSC 2503	Food Safety and Sanitation (Fa)	
FDSC 2523	Sanitation and Safety in Food Processing Operations (Irregular)	
FDSC 4122 & FDSC 4121L	Food Microbiology (Sp) and Food Microbiology Lab (Sp)	
Complete one of the following options (students must declare chosen minor with Bumpers College Dean's Office)		
Option 1: Agribusiness Minor (AGBS-M)		15
WCOB 1120	Computer Competency Requirement (Sp, Su, Fa) (AGME 2903 may be taken instead, but hours will be counted toward elective hours)	
AGEC 2142 & AGEC 2141L	Agribusiness Financial Records (Fa) and Agribusiness Financial Records Lab (Fa)	
AGEC 2303	Introduction to Agribusiness (Su)	
AGEC 3303	Food and Agricultural Marketing (Sp)	
AGEC 4313	Agricultural Business Management (Fa)	
Select one 3000-4000 level business course from the departmental codes: ACCT, AGECE, ECON, FINN,		

ISYS, MGMT, MKTG, SPCM or WCOB		
Option 2: General Business Minor (GBUS-M)		15
WCOB 1120	Computer Competency Requirement (Sp, Su, Fa)	
ACCT 2013	Accounting Principles (Sp, Fa)	
MGMT 3563	Management Concepts and Organizational Behavior (Irregular)	
MKTG 3433	Introduction to Marketing (Sp, Su, Fa)	
Select two 3000-4000 level Walton College courses chosen from department codes: ACCT, ECON, FINN, ISYS, MGMT, MKTG, SPCM or WCOB		
Option 3: General Foods and Nutrition Minor (GFNU-M)		18
HESC 1213	Fundamentals of Nutrition (Sp, Fa)	
HESC 2112	Principles of Foods (Sp, Fa)	
& HESC 2111L	and Principles of Foods Laboratory (Sp, Fa)	
HESC 3203	Human Nutrition (Sp, Fa)	
HESC 4213	Advanced Nutrition (Fa)	
Select two of the following:		
HESC 2203	Sports Nutrition (Sp)	
HESC 4223	Life Cycle Nutrition (Fa)	
HESC 4243	Community Nutrition (Sp)	
Additional Requirements for Food and Culinary Sciences Concentration (24 hours)		
HESC 1213	Fundamentals of Nutrition (Sp, Fa)	3
BAKG 1003	Introduction to Baking ¹	3
Select one of the following:		3
FDSC 2503	Food Safety and Sanitation (Fa)	
CULY 1003	Safety and Sanitation ¹	
CULY 1103	Introduction to Food Preparation ¹	3
CULY 1203	Stocks, Sauces and Soups ¹	3
CULY 1303	Center of the Plate Applications ¹	3
CULY 1403	Garde Manger ¹	3
CULY 2003	World Cuisine ¹	3
Total Hours		120

¹ Indicates NorthWest Arkansas Community College course codes.

Minor in Food Science (FDSC-M)

The Food Science Minor consists of 18 semester hours to include:

The following courses are required for a minor in Food Science:

FDSC 3103	Principles of Food Processing (Even years, Fa)	3
FDSC 4122	Food Microbiology (Sp)	3
& FDSC 4121L	and Food Microbiology Lab (Sp)	
FDSC 4304	Food Chemistry (Odd years, Fa)	4
and a minimum of 8 hours selected from the following courses:		8
FDSC 2503	Food Safety and Sanitation (Fa)	
FDSC 3202	Introduction to Food Law (Even years, Sp)	
FDSC 4114	Food Analysis (Even years, Sp)	
FDSC 4203	Quality Evaluation and Control (Even years, Fa)	
HESC 1213	Fundamentals of Nutrition (Sp, Fa)	

A student planning to minor in food science must consult a Department of Food Science adviser.

Food Science B.S.A., Food Science Concentration

Nine-Semester Degree Program

Because the Food Science Concentration requires an internship one summer, students cannot enroll in an Eight-Semester Program. See the [Eight-Semester Degree Policy](#) for requirements of the eight-semester programs.

	Units		
	Fall	Spring	Summer
First Year			
AFLS 1011 UNIV 1001 Freshman Orientation University Perspectives (Fa)		1	
BIOL 1543 Principles of Biology (ACTS Equivalency = BIOL 1014 Lecture) (Sp, Su, Fa) & BIOL 1541L Principles of Biology Laboratory (ACTS Equivalency = BIOL 1014 Lab) (Sp, Su, Fa)		4	
ENGL 1013 Composition I (ACTS Equivalency = ENGL 1013) (Sp, Su, Fa)		3	
FDSC 1011 Food Science Orientation (Fa)		1	
MATH 1203 College Algebra (ACTS Equivalency = MATH 1103) (Sp, Su, Fa)		3	
University Core in Fine Arts/Humanities or Social Science or History		3	
CHEM 1103 University Chemistry I (Su, Fa) & CHEM 1101L University of Chemistry I Laboratory (Sp, Su, Fa)		4	
ENGL 1023 Composition II (ACTS Equivalency = ENGL 1023) (Sp, Su, Fa)		3	
FDSC 1103 Introduction to Food Science (Sp)		3	
MATH 1213 Plane Trigonometry (ACTS Equivalency = MATH 1203) (Sp, Su, Fa)		3	
University Core in Fine Arts/Humanities or Social Science or History		3	
Year Total:	15	16	
Second Year			
Units			
	Fall	Spring	Summer
CHEM 1123 University Chemistry II (ACTS Equivalency = CHEM 1004 Lecture) (Sp, Su, Fa) & CHEM 1121L University Chemistry II Laboratory (ACTS Equivalency = CHEM 1004 Lab) (Sp, Su, Fa)		4	
HESC 1213 Fundamentals of Nutrition (Sp, Fa)		3	
MATH 2554 Calculus I (ACTS Equivalency = MATH 2405) (Sp, Su, Fa)		4	
Select one of the following:		3	
FDSC 2603 Science in the Kitchen (Su, Fa) (recommended elective)			
General Elective			
BIOL 2013 General Microbiology (ACTS Equivalency = BIOL 2004 Lecture) (Sp, Su, Fa) & BIOL 2011L General Microbiology Laboratory (ACTS Equivalency = BIOL 2004 Lab) (Sp, Su, Fa)		4	
CHEM 2613 Organic Physiological Chemistry (ACTS Equivalency = CHEM 1224 Lecture) (Sp, Su) & CHEM 2611L Organic Physiological Chemistry Laboratory (ACTS Equivalency = CHEM 1224 Lab) (Sp, Su)		4	

Communication Intensive Elective (from approved list of courses)	3	
University Core in Fine Arts/Humanities or Social Science or History	3	
Select one of the following:	1	
FDSC 2701 Food for Health (Sp) (recommended)		
General Elective		
Year Total:	14	15

Third Year

	Units		
	Fall	Spring	Summer
FDSC 4122 Food Microbiology (Sp)	3		
& FDSC 4121L Food Microbiology Lab (Sp)			
FDSC 4304 Food Chemistry (Odd years, Fa)	4		
PHYS 2013 College Physics I (ACTS Equivalency = PHYS 2014 Lecture) (Su, Fa)			
& PHYS 2011L College Physics I Laboratory (ACTS Equivalency = PHYS 2014 Lab) (Su, Fa)	4		
Select one of the following:	3		
STAT 2303 Principles of Statistics (ACTS Equivalency = MATH 2103) (Sp)			
STAT 2023 Biostatistics (Sp)			
AGST 4023 Principles of Experimentation (Fa)			
Communication Intensive Elective (from approved list of courses)	3		
FDSC 3202 Introduction to Food Law (Even years, Sp)	2		
FDSC 4114 Food Analysis (Even years, Sp)	4		
FDSC 4754 Engineering Principles of Food Processing (Odd years, Sp)	4		
University Core in Fine Arts/Humanities or Social Science or History	3		
FDSC 431V Internship in Food Science (Sp, Su, Fa)			3
Year Total:	14	16	3

Fourth Year

	Units		
	Fall	Spring	Summer
CHEM 3813 Introduction to Biochemistry (Su, Fa)	3		
FDSC 3103 Principles of Food Processing (Even years, Fa)	3		
FDSC 4413 Sensory Evaluation of Food (Odd years, Fa)	3		
University Core in Fine Arts/Humanities or Social Science or History	3		
General Elective	3		
FDSC 4713 Food Product and Process Development (Odd years, Sp)		3	
University Core in Fine Arts/Humanities or Social Science or History		3	
General Elective		6	
Year Total:	15	12	

Total Units in Sequence: 120

Food Science B.S.A., Food Technology Concentration

Nine-Semester Degree Program

Because the Food Technology Concentration requires an internship one summer, students cannot enroll in an Eight-Semester Program. See the [Eight-Semester Degree Policy](#) for requirements of the eight-semester programs. Students in the Food Technology Concentration must also minor in agribusiness, general business or

nutrition.

	First Year			Units		
	Fall	Spring	Summer	Fall	Spring	Summer
AFLS 101 UNIV 1001 Freshman Orientation University Perspectives (Fa)			1			
BIOL 1543 Principles of Biology (ACTS Equivalency = BIOL 1014 Lecture) (Sp, Su, Fa) & BIOL 1541L Principles of Biology Laboratory (ACTS Equivalency = BIOL 1014 Lab) (Sp, Su, Fa)			4			
ENGL 1013 Composition I (ACTS Equivalency = ENGL 1013) (Sp, Su, Fa)			3			
FDSC 1011 Food Science Orientation (Fa)			1			
MATH 1203 College Algebra (ACTS Equivalency = MATH 1103) (Sp, Su, Fa)			3			
University Core in Fine Arts/Humanities or Social Science or History			3			
CHEM 1103 University Chemistry I (Su, Fa) & CHEM 1101L University of Chemistry I Laboratory (Sp, Su, Fa)					4	
ENGL 1023 Composition II (ACTS Equivalency = ENGL 1023) (Sp, Su, Fa)				3		
FDSC 1103 Introduction to Food Science (Sp)				3		
Select one of the following:				3		
Business minors only:						
AGEC 1103 Principles of Agricultural Microeconomics (Sp, Fa) ((business minors)) or ECON 2143 Basic Economics: Theory and Practice (Sp, Su, Fa)						
Nutrition minor only:						
University Core in Social Science						
Select one of the following:				3		
Business minors only:						
WCOB 1120 Computer Competency Requirement (Sp, Su, Fa)						
MATH 2053 Finite Mathematics (Sp, Su, Fa)						
Nutrition minor only:						
HESC 1213 Fundamentals of Nutrition (Sp, Fa)						
Year Total:			15	16		

	Second Year			Units		
	Fall	Spring	Summer	Fall	Spring	Summer
CHEM 1123 University Chemistry II (ACTS Equivalency = CHEM 1004 Lecture) (Sp, Su, Fa) & CHEM 1121L University Chemistry II Laboratory (ACTS Equivalency = CHEM 1004 Lab) (Sp, Su, Fa)			4			
FDSC 2503 Food Safety and Sanitation (Fa)			3			
MATH 2043 Survey of Calculus (ACTS Equivalency = MATH 2203) (Sp, Su, Fa)			3			
Select one of the following:			6			
Business minors only:						
AGEC 2142 Agribusiness Financial Records (Fa) & AGEC 2141L Agribusiness Financial Records Lab (Fa) or ACCT 2013 Accounting Principles (Sp, Fa)					0	
Nutrition minor only:						
HESC 2112 Principles of Foods (Sp, Fa) & HESC 2111L Principles of Foods Laboratory (Sp, Fa)					0	
Select one of the following:						
FDSC 2603 Science in the Kitchen (Su, Fa) (recommended)						
General Elective						

Communication Intensive Elective (from approved list of courses)	3	
CHEM 2613 Organic Physiological Chemistry (ACTS Equivalency = CHEM 1224 Lecture) (Sp, Su)		4
& CHEM 2611L Organic Physiological Chemistry Laboratory (ACTS Equivalency = CHEM 1224 Lab) (Sp, Su)		
Select one of the following:	3	
AGEC 2403 Quantitative Tools for Agribusiness (Sp)		
WCOB 1033 Data Analysis and Interpretation (Sp, Su, Fa)		
STAT 2303 Principles of Statistics (ACTS Equivalency = MATH 2103) (Sp)		
AGST 4023 Principles of Experimentation (Fa)		
University Core in Fine Arts/Humanities or Social Science or History		3
Select one of the following:		1
FDSC 2701 Food for Health (Sp) (recommended)		
General Elective		
Year Total:	16	14

Third Year

Units
Fall Spring Summer

BIOL 2013 General Microbiology (ACTS Equivalency = BIOL 2004 Lecture) (Sp, Su, Fa)			
& BIOL 2011L General Microbiology Laboratory (ACTS Equivalency = BIOL 2004 Lab) (Sp, Su, Fa)	4		
FDSC 4304 Food Chemistry (Odd years, Fa)	4		
Select one of the following:	3		
Business minors only:			
AGEC 3303 Food and Agricultural Marketing (Sp)			
or MKTG 3433 Introduction to Marketing (Sp, Su, Fa)			
Nutrition minor only:			
HESC 4223 Life Cycle Nutrition (Fa)			
University Core in Fine Arts/Humanities or Social Science or History		3	
Communication Intensive Elective (from approved list of courses)			3
FDSC 3202 Introduction to Food Law (Even years, Sp)			2
FDSC 4114 Food Analysis (Even years, Sp)			4
Select one of the following:			6
Business minors only:			
AGEC 2303 Introduction to Agribusiness (Su)			
or MGMT 3563 Management Concepts and Organizational Behavior (Irregular)			
3000-4000 level business elective			
Nutrition minor only:			
CHEM 3813 Introduction to Biochemistry (Su, Fa)			
HESC 3203 Human Nutrition (Sp, Fa)			
FDSC 431V Internship in Food Science (Sp, Su, Fa)			3
Year Total:	14	15	3

Fourth Year

Units
Fall Spring Summer

FDSC 3103 Principles of Food Processing (Even years, Fa)	3		
FDSC 4413 Sensory Evaluation of Food (Odd years, Fa)	3		
Select one of the following:	3		

Business minors only:

[AGEC 4313](#) Agricultural Business Management (Fa)

OR 30000-4000 level Business Elective

Nutrition minor only:

[HESC 4213](#) Advanced Nutrition (Fa)

University core in Fine Arts/Humanities or Social Science or History

3

General Elective

3

[FDSC 4713](#) Food Product and Process Development (Odd years, Sp)

3

Select one of the following:

6

Business minors only:

General Elective

Nutrition minor only:

[HESC 2203](#) Sports Nutrition (Sp)

or [HESC 4243](#) Community Nutrition (Sp)

General Elective

University Core in Fine Arts/Humanities or Social Science or History

3

Year Total:

15 12

Total Units in Sequence:

120

Food Science B.S.A., Food and Culinary Sciences Concentration

Nine-Semester Degree Program

Because the Food and Culinary Sciences Concentration requires an internship one summer, students cannot enroll in an Eight-Semester Program. See the [Eight-Semester Degree Policy](#) for requirements of the eight-semester programs.

First Year

Units

Fall Spring Summer

~~[AFLS 1011](#)~~ [UNIV 1011](#) ~~Freshman Orientation~~ [University Perspectives](#) (Fa)

1

[BIOL 1543](#) Principles of Biology (ACTS Equivalency = BIOL 1014 Lecture) (Sp, Su, Fa)

& [BIOL 1541L](#) Principles of Biology Laboratory (ACTS Equivalency = BIOL 1014 Lab)

(Sp, Su, Fa)

4

[ENGL 1013](#) Composition I (ACTS Equivalency = ENGL 1013) (Sp, Su, Fa)

3

[FDSC 1011](#) Food Science Orientation (Fa)

1

[MATH 1203](#) College Algebra (ACTS Equivalency = MATH 1103) (Sp, Su, Fa)

3

University Core in Fine Arts/Humanities or Social Science or History

3

[CHEM 1103](#) University Chemistry I (Su, Fa)

4

& [CHEM 1101L](#) University of Chemistry I Laboratory (Sp, Su, Fa)

3

[ENGL 1023](#) Composition II (ACTS Equivalency = ENGL 1023) (Sp, Su, Fa)

3

[FDSC 1103](#) Introduction to Food Science (Sp)

3

Select one of the following:

3

[FDSC 2503](#) Food Safety and Sanitation (Fa)

CULY 1003 Safety and Sanitation¹

University core in Fine Arts/Humanities or Social Science or History

3

Year Total:

15 16

Second Year		Units		
		Fall	Spring	Summer
CHEM 1123 University Chemistry II (ACTS Equivalency = CHEM 1004 Lecture) (Sp, Su, Fa)				
& CHEM 1121L University Chemistry II Laboratory (ACTS Equivalency = CHEM 1004 Lab) (Sp, Su, Fa)				4
HESC 1213 Fundamentals of Nutrition (Sp, Fa)				3
MATH 2043 Survey of Calculus (ACTS Equivalency = MATH 2203) (Sp, Su, Fa)				3
University Core in Fine Arts/Humanities or Social Science or History				3
CULY 1103 Introduction to Food Preparation Theory ¹				3
BIOL 2013 General Microbiology (ACTS Equivalency = BIOL 2004 Lecture) (Sp, Su, Fa)				
& BIOL 2011L General Microbiology Laboratory (ACTS Equivalency = BIOL 2004 Lab) (Sp, Su, Fa)				4
CHEM 2613 Organic Physiological Chemistry (ACTS Equivalency = CHEM 1224 Lecture) (Sp, Su)				
& CHEM 2611L Organic Physiological Chemistry Laboratory (ACTS Equivalency = CHEM 1224 Lab) (Sp, Su)				4
Communication Intensive Elective (from approved list of courses; must be 3000-4000 level course)				3
Select one of the following:				1
FDSC 2701 Food for Health (Sp)				
General Elective				
CULY 1203 Stocks, Soups and Sauces ¹				3
Year Total:		16	15	
Third Year		Units		
		Fall	Spring	Summer
FDSC 4304 Food Chemistry (Odd years, Fa)				4
STAT 2303 Principles of Statistics (ACTS Equivalency = MATH 2103) (Sp)				3
University Core in Fine Arts/Humanities or Social Science or History				3
General Elective (must be 3000-4000 level course)				3
BAKG 1003 Introduction to Baking ¹				3
Communication Intensive Elective (from approved list of courses; must be 3000-4000 level course)				3
FDSC 3202 Introduction to Food Law (Even years, Sp)				2
FDSC 4114 Food Analysis (Even years, Sp)				4
University Core in Fine Arts/Humanities or Social Science or History				3
CULY 1403 Garde Manger ¹				3
FDSC 431V Internship in Food Science (Sp, Su, Fa)				3
Year Total:		16	15	3
Fourth Year		Units		
		Fall	Spring	Summer
FDSC 3103 Principles of Food Processing (Even years, Fa)				3
FDSC 4413 Sensory Evaluation of Food (Odd years, Fa)				3
University Core in Fine Arts/Humanities or Social Science or History				3
General Elective (must be 3000-4000 level course)				3
CULY 2003 World Cuisine ¹				3

FDSC 4713 Food Product and Process Development (Odd years, Sp)	3	
General Elective (must be 3000-4000 level course)	3	
CULY 1303 Center of the Plate Applications ¹	3	
Year Total:	15	9
Total Units in Sequence:		120

¹ Indicates NorthWest Arkansas Community College course codes.

SECTION VIII: Action Recorded by Registrar's Office

PROGRAM INVENTORY/DARS

PGRM _____ SUBJ _____ CIP _____ CRTS _____
DGRE _____ PGCT _____ OFFC&CRTY VALID _____

REPORTING CODES

PROG. DEF. _____ REQ. DEF. _____
Initials _____ Date _____

Distribution

Notification to:

- (1) College (2) Department (3) Admissions (4) Institutional Research (5) Continuing Education (6) Graduate School
(7) Treasurer (8) Undergraduate Program Committee

8/19/13