

FOOD SCIENCE & INDUSTRY

Science Option

(Curriculum works for Pre-Vet and Pre-Med students)

KANSAS STATE UNIVERSITY

College of Agriculture



Fall 2023

Spring 2024

NAME _____

ID # _____

****120 Total Hours for Graduation — 45 hours must be at the 300 level or above****

COMMUNICATIONS (11-12 cr)

1,2,3	ENGL	100	Expository Writing I	3
1,2,3	ENGL	200	Expository Writing II	3

Select one:

1,2,3	COMM	105	Public Speaking IA	2
1,2,3	COMM	106	Public Speaking I	3

One additional course in communications (3 cr)^a

SOCIAL SCIENCES & HUMANITIES (12 cr)

1,2,3	ECON	110	Prin Macro Economics	3
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QUANTITATIVE STUDIES (10 cr)

1,2,3	MATH	220	Analytic Geometry & Calc I	4
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Select one:

1,2,3	STAT	325	Intro to Statistics	3
1,2,	STAT	340	Biometrics	3
1,2,3	STAT	350	Business & Econ Stat I	3

Select one:

2	STAT	341	Biometrics II	3
1,2,3	STAT	351	Business & Econ Stat II	3

BIOLOGICAL SCIENCES (8 cr)

1,2,3	BIOL	198	Principles of Biology	4
1,2	BIOL	455	General Microbiology	4

PHYSICAL SCIENCES (23-24 cr)

1,2,3	CHM	210	Chemistry I	4
1,2,3	CHM	230	Chemistry II	4
1,2,3	BIOCH	521	Gen Biochemistry	3
1,2,3	BIOCH	522	Gen Biochemistry Lab	3

Select one:

1,2,3	CHM	350	Gen Organic Chem	3
1,2	CHM	531	Organic Chem I	3
1,2	CHM	550	Organic Chem II	3

Select one:

1,2,3	CHM	351	Gen. Org. Chem Lab	2
1,2	CHM	532	Org. Chem Lab	2

Select one:

1,2,3	PHYS	113	General Physics I	4
2	PHYS	115	Descriptive Physics	5

CORE FOOD SCIENCE COURSES (31-33 hrs)

(Must have 2.0 GPA average in core food science courses)

1	FDSCI	101	Foundations in Food Science	1
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-OR-

1,2	GENAG	200	Top/College Careers	0
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1,2	FDSCI	302	Intro Food Science	3
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2	FDSCI	305	Fund of Food Processing	3
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2	FDSCI	310	Professional Prep	1
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1	FDSCI	500	Food Science Seminar (Sr only)	1
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2	FDSCI	501	Food Chemistry	3
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1	FDSCI	600	Food Microbiology	2
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1	FDSCI	601	Food Microbiology Lab	2
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1	FDSCI	690	Principles of HACCP and HARPC	3
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1	FDSCI	727	Chemical Mthd of Food Analysis	2
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1	FDSCI	728	Physical Mthd of Food Analysis	2
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2	GRSC	540	Process Calculations in Food Systems	3
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2	GRSC	541	Process Calc in Food Systems Lab	1
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Select one:

1,2,3	FNDH	132	Basic Nutrition	3
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1,2	ASI	318	Fundamentals of Nutrition	3
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Select one:

2	FDSCI	695	Quality Assurance Food Prod	3
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1	FDSCI	740	R&D Food Product Development	4
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PROCESSING ELECTIVES (8 cr)^b

(Must have 8 hrs. processing electives from at least 2 commodity areas - Dairy, Grain, Meat, or Fruit/Vegetables. If choosing a lecture class only, then the accompanying lab class must be taken too.)

RESTRICTED ELECTIVES (9 cr)^c

UNRESTRICTED (FREE) ELECTIVES (up to 6 cr)

K-STATE 8 REQUIREMENTS

Each student must successfully complete courses to cover all of the K-State 8 areas.



a,b,c = see second and third page for details
1 = Fall 2 = Spring 3 = Summer

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SOCIAL SCIENCES & HUMANITIES ELECTIVES (9 cr)

Select 9 credit hours (Suggested courses must be taken from more than one department.):

American Ethnic Studies – Any course
 Anthropology - Any course
 Architecture – ARCH 301 Appreciation of Architecture
 Art - Any course
 Communications Studies - Any course
 Dance - Any course
 Economics - Any course between ECON 120 and ECON 735
 English - Any course **excluding ENGL 100** Expos Writing I and **ENGL 200** Expos Writing II
 Family Studies and Human Services - Any course
 Gender, Women and Sexuality Studies – Any course
 Geography - Any course **excluding GEOG 221**
 History - Any course
 Modern Languages – Any course
 Music - Any course
 Philosophy - Any course
 Political Science - Any course
 Psychology - Any course
 Social Work - Any course
 Sociology - Any course
 Theatre - Any course

^a COMMUNICATIONS ELECTIVE (3 cr)

1,2	COMM	311	Bus and Professional Speaking	3
1,2	COMM	321	Public Speaking II	3
1,2,3	ENGL	417	Written Communication for Workplace	3
1,2,3	ENGL	510	Intro to Professional Writing	3
1,2	ENGL	516	Written Communication for Sciences	3

^b PROCESSING ELECTIVES (8 cr)

1	ASI	310	Poultry Products Evaluation	2
1,2	ASI	350	Meat Science	3
1,2	ASI	361	Meat Animal Processing	2
1	ASI	370	Principles of Meat Evaluation	2
1	ASI	405	Fundamentals of Milk Processing	3
1	ASI	495	Advanced Meat Evaluation	2
2	ASI	608	Dairy Food Processing & Technology	3
2	ASI	610	Processed Meat Operations	2
2EY	ASI	640	Poultry Products Technology	3
2	ASI	777	Meat Technology	3
1	FDSCI	510	Fruit & Vegetable Processing	2
-AND-				
1	FDSCI	511	Fruit & Vegetable Processing Lab	1
1,2	GRSC	150	Principles of Milling	2
-AND-				
1,2	GRSC	151	Principles of Milling Lab	1
1,2	GRSC	602	Cereal Science	3
1	GRSC	635	Baking Science I	2
-AND-				
1	GRSC	636	Baking Science I Lab	2
2	GRSC	637	Baking Science II	3
-AND-				
2	GRSC	638	Baking Science II Lab	1
1	GRSC	645	Pet Food Processing	4
1EY	HORT	325	Introduction to Organic Farming	2

1= FALL 2= SPRING 3= SUMMER AY= Alternate yrs. OY= Odd yrs. EY= Even yrs.

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° RESTRICTED ELECTIVES (9 cr)

1,2,3	ACCTG	231	Accounting Business Operations	3
1,2,3	ACCTG	241	Accounting Investing & Financing	3
1,2	AGCOM	400	Ag Business Communications	3
1	AGCOM	590	New Media Technology	3
2	AGCOM	610	Crisis Communication	3
1,2	AGEC	120	Ag Econ & Agribusiness	3
-OR-				
1,2,3	ECON	120	Principles of Microeconomics	3
	AGEC		Any course 200 level or above	
1	AGRON	335	Environmental Quality	3
	ASI		Any course 200 level or above	
1	ATM	160	Engineered Systems & Technology in Ag	3
2	ATM	450	Sensors/Control Ag Biol Systems	3
	BIOL		Any course 300 level or above	
	CHM		Any course between 371 and 752	
	CIS		Any course between 101 and 105	
1,2	COMM	311	Business and Professional Speaking	3
1,2	COMM	321	Public Speaking II	3
1,2,3	COMM	326	Small Group Discussion Methods	3
2	COMM	535	Communication Leadership	3
1,2,3	ECON	510	Intermediate Macroeconomics	3
1,2,3	ECON	520	Intermediate Microeconomics	3
1,2,3	ENGL	417	Written Communication for Workplace	3
1,2,3	ENGL	510	Intro to Professional Writing	3
1,2	ENGL	516	Written Communication for Sciences	3
	FDSCI		Any course 400 level or above	3
1,2,3	FINAN	450	Principles of Finance	3
2OY	FNDH	301	Food Trends, Laws and Regulations	3
1,2	FNDH	340	Food & Health Safety Allergies and Intolerances	3
1,2	FNDH	342	Food Production Management	3
2	FNDH	400	Human Nutrition	3
1,2	FNDH	413	Science of Food	4
1	FNDH	643	Food Writing	3
1OY	FNDH	701	Sensory Analysis	3
2	GENAG	210	Human and Cultural Diversity in Ag	3
1,2,3	GENAG	505	Comparative Agriculture	1-4
1,2	GNHE	310	Human Needs	3
	GRSC		Any course	
2	HM	220	Environmental Issue in Hospitality	3
1,2	HM	341	Principles of Food Production Mgmt	3
1,2	HM	442	Introduction to Wines	1
1EY	HORT	325	Introduction to Organic Farming	3
2	HORT	780	Health Promoting Phytochemicals	2
1,2	KIN	360	Anatomy and Physiology	8
1,2	LEAD	212	Intro to Leadership Concepts	3
	MANGT		Any course 300 level or above	
	MKTG		Any course 400 level or above	
1,2,3	PHYS	114	General Physics II	4
			ANY FOREIGN LANGUAGE	3-5

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Other restricted electives can be substituted as appropriate by checking with the FDSCI Teaching Coordinator.