

# FOOD SCIENCE & INDUSTRY

## Food Business & Operations Management

KANSAS STATE UNIVERSITY

College of Agriculture



Fall 2018

Spring 2019

NAME \_\_\_\_\_

ID # \_\_\_\_\_

**\*\*126 Total Hours for Graduation — 45 hours must be at the 300 level or above\*\***

### COMMUNICATIONS (10-12 hrs)

|                    |      |     |                       |   |
|--------------------|------|-----|-----------------------|---|
| 1,2,3              | ENGL | 100 | Expository Writing I  | 3 |
| 1,2,3              | ENGL | 200 | Expository Writing II | 3 |
| <b>Select one:</b> |      |     |                       |   |
| 1,2,3              | COMM | 105 | Public Speaking IA    | 2 |
| 1,2,3              | COMM | 106 | Public Speaking I     | 3 |

**One additional course in communications (2-3 hrs)**

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### SOCIAL SCIENCES & HUMANITIES (12 hrs)

|       |      |     |                      |   |
|-------|------|-----|----------------------|---|
| 1,2,3 | ECON | 110 | Prin Macro Economics | 3 |
|-------|------|-----|----------------------|---|

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### QUANTITATIVE STUDIES (6 hrs)

|                    |      |     |                         |   |
|--------------------|------|-----|-------------------------|---|
| 1,2,3              | MATH | 205 | Gen Calc Linear Algebra | 3 |
| <b>Select one:</b> |      |     |                         |   |
| 1,2,3              | STAT | 325 | Intro to Statistics     | 3 |
| 1,2                | STAT | 340 | Biometrics I            | 3 |
| 1,2,3              | STAT | 350 | Business & Econ Stat I  | 3 |

### BIOLOGICAL SCIENCES (8 hrs)

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

### PHYSICAL SCIENCES (13 hrs)

|       |       |     |                              |   |
|-------|-------|-----|------------------------------|---|
| 1,2,3 | CHM   | 210 | Chemistry I                  | 4 |
| 1,2,3 | CHM   | 230 | Chemistry II                 | 4 |
| 1,2   | BIOCH | 265 | Intro Organic & Biochemistry | 5 |

### BUSINESS & ECONOMICS (18 hrs)<sup>a</sup>

(Students are strongly encouraged to complete a minor in either Business Administration, Agribusiness, or Agricultural Economics. Students can sign-up for a minor with the respective departments)

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### CORE FOOD SCIENCE COURSES (23-26 hrs)

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

|     |       |     |                                  |   |
|-----|-------|-----|----------------------------------|---|
| 1   | FDSCI | 101 | Foundations in Food Science -OR- | 1 |
| 1,2 | GENAG | 200 | Top/College Careers              | 0 |
| 1,2 | FDSCI | 302 | Intro Food Science               | 3 |
| 2   | FDSCI | 305 | Fund of Food Processing          | 3 |
| 2   | FDSCI | 310 | Professional Prep                | 1 |
| 1   | FDSCI | 500 | Food Science Seminar (Sr only)   | 1 |
| 1   | FDSCI | 600 | Food Microbiology                | 2 |
| 1   | FDSCI | 601 | Food Microbiology Lab            | 2 |
| 1   | FDSCI | 690 | Principles of HACCP/HARPC        | 3 |

**Select one:**

|       |      |     |                           |   |
|-------|------|-----|---------------------------|---|
| 1,2   | ASI  | 318 | Fundamentals of Nutrition | 3 |
| 1,2,3 | FNDH | 132 | Basic Nutrition           | 3 |

**Select one:**

|     |       |     |                 |   |
|-----|-------|-----|-----------------|---|
| 2   | FDSCI | 501 | Food Chemistry  | 3 |
| 1,2 | FNDH  | 413 | Science of Food | 4 |

**Select one:**

|   |       |     |                              |   |
|---|-------|-----|------------------------------|---|
| 1 | FDSCI | 695 | Quality Assur Food Prod      | 3 |
| 1 | FDSCI | 740 | R&D Food Product Development | 4 |

### PROCESSING ELECTIVES (8 hrs)<sup>a</sup>

(Must have 8 hrs. processing electives from at least 2 commodity areas - Dairy, Grain, Meat, or Fruit/Vegetables):

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### PROFESSIONAL ELECTIVES (14 hrs)<sup>a</sup>

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### K-STATE 8 REQUIREMENTS

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



<sup>a</sup> See Professional Electives Course List  
1 = Fall    2 = Spring    3 = Summer

**FOOD SCIENCE AND INDUSTRY**  
**FOOD BUSINESS and OPERATIONS MANAGEMENT OPTION**

Fall 2018  
 Spring 2019

**SOCIAL SCIENCES & HUMANITIES (12 hrs)**

ECON 110 Principles of Macroeconomics

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

Anthropology - Any course  
 Architecture – ARCH 301 Appreciation of Architecture  
 Art - Any course  
 Communications - 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  
 Geography - Any course **excluding GEOG 221**  
 History - 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  
 Women Studies – WOMST 105 Intro to Women’s Studies

**PROFESSIONAL ELECTIVES**

| <u>PROCESSING ELECTIVES</u> |       |     |   |
|-----------------------------|-------|-----|---|
| 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             |
| 1                           | ASI   | 671 | Meat Selection and Utilization 2          |
| 2                           | ASI   | 777 | Meat Technology 3                         |
| 1,2,3                       | FDSCI | 660 | International Study Experience Food Sci 3 |
| 1,2                         | GRSC  | 101 | Intro to Grain Science and Industry 3     |
| 1,2                         | GRSC  | 150 | Principles of Milling 2                   |
| 1,2                         | GRSC  | 151 | Principles of Milling Lab 1               |
| 1                           | GRSC  | 405 | Grain Analysis Techniques 2               |
| 1,2                         | GRSC  | 602 | Cereal Science 3                          |
| 1                           | GRSC  | 625 | Flour and Dough Testing 3                 |
| 1                           | GRSC  | 635 | Baking Science I 2                        |
| 1                           | GRSC  | 636 | Baking Science I Lab 2                    |
| 2                           | GRSC  | 637 | Baking Science II 3                       |
| 2                           | GRSC  | 638 | Baking Science II Lab 1                   |
| 1                           | GRSC  | 645 | Pet Food Processing 4                     |
| 1EY                         | HORT  | 325 | Introduction to Organic Farming 2         |

| <u>COMMUNICATIONS ELECTIVES</u> |       |     |                                       |
|---------------------------------|-------|-----|---------------------------------------|
| 1,2                             | AGCOM | 400 | Ag Business Communications 3          |
| 1                               | AGCOM | 590 | New Media Technology 3                |
| 2                               | AGCOM | 610 | Crisis Communication 3                |
| 1                               | ASI   | 495 | Advanced Meat Evaluation 2            |
| 1,2                             | COMM  | 311 | Bus and Professional Speaking 3       |
| 1,2                             | COMM  | 321 | Public Speaking II 3                  |
| 1,2,3                           | COMM  | 322 | Interpersonal Communication 3         |
| 1,2,3                           | COMM  | 326 | Small Group Discussion Methods 3      |
| 2                               | COMM  | 535 | Communication Leadership 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  |
| 1                               | FNDH  | 643 | Food Writing 3                        |

|     |      |     |                                  |
|-----|------|-----|----------------------------------|
| 1,2 | MKTG | 542 | Professional Selling and Sales 3 |
|     |      |     | ANY FOREIGN LANGUAGE 3-5         |

| <u>BUSINESS, MANAGEMENT &amp; ECON ELECTIVES</u> |       |     |                                    |
|--|-------|-----|------------------------------------|
| 1,2,3  | ACCTG | 231 | Accounting Business Operations 3   |
| 1,2,3  | ACCTG | 241 | Accounting Investing & Financing 3 |
| 1,2  | AGEC  | 120 | Ag Econ & Agribusiness 3           |
|  |       |     | -OR-                               |
| 1,2,3  | ECON  | 120 | Prin Micro Economics 3             |
| 1,2  | AGEC  |     | Any course 200 level or above      |
| 1,2,3  | ECON  | 510 | Intermediate Macro Economics 3     |
| 1,2,3  | ECON  | 520 | Intermediate Micro Economics 3     |
| 1,2,3  | FINAN | 450 | Principles of Finance 3            |
| 1,2,3  | MANGT |     | Any course 300 level or above      |
| 1,2,3  | MKTG  |     | Any course 400 level or above      |

| <u>SPECIALIZATION ELECTIVES</u> |       |     |  |
|---------------------------------|-------|-----|--|
| 1                               | AGRON | 335 | Environmental Quality 3                  |
| 1,2                             | ASI   |     | Any course between ASI 290 and ASI 777   |
| 1                               | ATM   | 160 | Eng. Systems and Tech in Ag 3            |
| 2                               | ATM   | 450 | Sensors/Control Ag Biol Systems 3        |
| 1                               | BIOL  | 330 | Public Health Biology 3                  |
| 1,2,3                           | CIS   |     | Any course between CIS 101 and CIS 105 1 |
| 1,2                             | FDSCI |     | Any course 400 level or above            |
| 2                               | GENAG | 210 | Human Culture & Diversity in Ag Sci 3    |
| 1                               | GENAG | 711 | Occupational and Agricultural Health 3   |
| 2                               | GENAG | 721 | Occupational and Ag Safety and Health 3  |
| 1,2                             | GRSC  |     | Any course                               |
| 2                               | HM    | 220 | Environmental Issues in Hospitality 3    |
| 1,2                             | HM    | 341 | Principles of Food Production Mngmt 3    |
| 1,2                             | HM    | 442 | Introduction to Wines 1                  |
| 1,2                             | FNDH  |     | Any course 300 level or above            |
| 2                               | HORT  | 780 | Health Promoting Phytochemicals 2        |
| 1,2                             | LEAD  | 212 | Intro to Leadership Concepts 2           |
| 1,2,3                           | PHYS  | 113 | General Physics I 4                      |
| 1,2,3                           | PHYS  | 114 | General Physics II 4                     |
| 2                               | STAT  | 341 | Biometrics II 3                          |
|                                 |       |     | -OR-                                     |
| 1,2,3                           | STAT  | 351 | Business & Econ Stat II 3                |

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

Other professional electives can be substituted as appropriate by checking with the Chair of the FDSCI program.