Attachment 1<br>Consent Agenda Information<br>Academic Affairs

## Arts \& Sciences undergraduate course changes (11-3-11)

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Course changes in Political Science

## Agriculture undergraduate course and curriculum changes (11-17-11)

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## Political Science

FROM: POLSC 325 - U.S. Politics. (3) I, II, S. The national government with emphasis on constitutional principles, basic structure, functions, and the political process. K-State 8: Historical Perspectives; Social Sciences.

TO: POLSC 115 - U.S. Politics. (3) I, II, S. The national government with emphasis on constitutional principles, basic structure, functions, and the political process. K-State 8: Historical Perspectives; Social Sciences.

RATIONALE: After much consideration, the department as a whole has concluded that the four core introductory level courses for our major, including POLSC 325, must be renumbered. Their content is more consistent with 100 level courses rather than 300 level courses. Each of these courses is a true introductory level course pitched at the freshman level. Additionally, this numbering change brings our required lower level curriculum more in line with other majors within Arts and Sciences.

IMPACT: There are no direct impacts on other colleges/units.
EFFECTIVE DATE: Fall 2012

FROM: POLSC 344 - Introduction to Comparative Politics. (3) I, II. Comparative analysis of politics in both "developed" and "developing" countries. Though some attention will be given to abstract and theoretical concepts, the emphasis will be on the actual political process in the countries selected for study. K-State 8: Ethical Reasoning and Responsibility; Global Issues and Perspectives.

TO: POLSC 135 - Introduction to Comparative Politics. (3) I, II. Comparative analysis of politics in both "developed" and "developing" countries. Though some attention will be given to abstract and theoretical concepts, the emphasis will be on the actual political process in the countries selected for study. K-State 8: Ethical Reasoning and Responsibility; Global Issues and Perspectives.

RATIONALE: After much consideration, the department as a whole has concluded that the four core introductory level courses for our major, including POLSC 344, must be renumbered. Their content is more consistent with 100 level courses rather than 300 level courses. Each of these courses is a true introductory level course pitched at the freshman level. Additionally, this numbering change brings our required lower level curriculum more in line with other majors within Arts and Sciences.

IMPACT: There are no direct impacts on other colleges/units.
EFFECTIVE DATE:
Fall 2012

ADD: AGEC 115. Decision Tools for Agricultural Economics and Agribusiness. (2) I, II. Development of foundational computer-based empirical skills that address economic and business issues in food and agriculture. Students will learn how to model information on an issue or problem using mathematical spreadsheets to find relevant answers for decision makers and stakeholders. Two hours recitation per week. K-State 8: Empirical and Quantitative Reasoning.

RATIONALE: Computer skills of incoming freshmen are at a level where orientation classes such as AGEC105 (Agricultural Economics and Agribusiness Orientation) teach students how to use K-State Online. Similar to AGEC 120 (Agricultural Economics and Agribusiness), it is important to establish a coherent foundation for applying quantitative skills to Agricultural Economics and Agribusiness problems in upper classes. As witnessed by many of our instructors, AGEC 490 (Computer Applications in Agricultural Economics and Agribusiness) has served well to prepare many students for our 500-level classes, but this course will be offered at the very beginning of the curriculum so that students can build on their skills throughout the entire curriculum. We envision this class to emphasize building skills to translate real world problems into spreadsheets and interpret the results as solutions to the problems.

IMPACT: None.

EFFECTIVE DATE: Fall 2012

DROP:

RATIONALE: The curriculum is being revised for students to build foundation in quantitative reasoning and computer skills at the very beginning of the curriculum, so that students can build on their skills throughout the entire curriculum.

IMPACT: No impact on other departments.
EFFECTIVE DATE: Fall 2013
FROM: AGEC 500. Production Economics. (3) I, II. Application of economic principles to problems of agricultural production. Analysis of consumer demand for agricultural products and input and output decisions of the agricultural firm. AGEC 505 is a continuation of this course and they are intended to be taken in consecutive semesters. Three hours of recitation a week. Pr: AGEC 120 or AGEC 121 or ECON 120 and MATH 205. K-State 8: Empirical and Quantitative Reasoning, Social Sciences.

TO: AGEC 500. Production Economics. (3) I, II. Application of economic principles to problems of agricultural production. Analysis of consumer demand for agricultural
products and input and output decisions of the agricultural firm. AGEC 505 is a continuation of this course and they are intended to be taken in consecutive semesters. Three hours of recitation a week. Pr: AGEC 120 or AGEC 121 or ECON 120 and MATH 205. Rec Pr: AGEC 115. K-State 8: Empirical and Quantitative Reasoning, Social Sciences.

RATIONALE: In order to have solid foundation in quantitate reasoning and analytical skills, students are recommended to take AGEC115 (Ag Econ Decision Tools) prior to this class. This will enable instruction to focus on application of skills.

IMPACT: None.
EFFECTIVE DATE: Fall 2012

ADD: AGEC 501. Data Analysis and Optimization. (3) I, II. Analysis of agricultural business and economic data and optimization for decision making. Study applications of regression, time series analysis and forecasting to agricultural and economic data. Introduction to mathematical programming to model optimization of problems commonly encountered in agricultural economics. Three hours recitation per week. Pr.: AGEC 115 or AGEC 490, AGEC 120 or AGEC 121 or ECON 120, MATH 205, STAT 350. K-State 8: Empirical and Quantitative Reasoning.

RATIONALE: This course is an integral part of the proposed change in our curriculum to provide enhanced opportunities for students to acquire strong quantitative reasoning and analytical skills, which are increasingly called for by their employers. This capstone course is intended to be taken at the beginning of junior year, where students can enhance their quantitative and analytical skills to proficiency in business and economic settings.

IMPACT: No impact on other departments.
EFFECTIVE DATE: Spring 2013
FROM: AGEC 505. Agricultural Market Structures. (3) I, II. Theory and application of economic principles to marketing problems in agriculture. Pricing of agricultural output and productive services under various forms of economic organization and competition; regional specialization, location, and trade; determinants of economic change; evaluation of economic and consumer welfare. Two hours lecture and two hours lab a week. Pr: AGEC 500. K-State 8:Emperical and Quantitative Reasoning, Social Sciences

TO: AGEC 505. Agricultural Market Structures. (3) I, II. Theory and application of economic principles to marketing problems in agriculture. Pricing of agricultural output and productive services under various forms of economic organization and competition; regional specialization, location, and trade; determinants of economic change; evaluation of economic and consumer welfare. Two hours lecture and two hours lab a week. Pr: AGEC 120 or AGEC 121 or ECON 120 and MATH 205 and AGEC 500. Rec Pr: AGEC 115. K-State 8: Empirical and Quantitative Reasoning, Social Sciences.

RATIONALE: This course follows AGEC 500 (Production Economics). To enable instructors for this course to monitor whether students have met prerequisites, all prerequisites for AGEC 500 are explicitly listed.

## EFFECTIVE DATE: Fall 2012

FROM: AGEC 513. Agriculture Finance. (3) I, II. Analysis of capital investments, interpretation of financial statements, capital structure considerations for agricultural firms, and farm real estate pricing. Three hours of recitation a week. Pr: AGEC 308 or AGEC 318 and ACCTG 231. K-State 8: Empirical and Quantitative Reasoning

TO: AGEC 513. Agriculture Finance. (3) I, II. Analysis of capital investments, interpretation of financial statements, capital structure considerations for agricultural firms, and farm real estate pricing. Three hours of recitation a week. Pre-Requisite: AGEC 308 or AGEC 318 and ACCTG 231. Rec Pr: AGEC 115. K-State 8: Empirical and Quantitative Reasoning

RATIONALE: In order to have solid foundation in quantitative reasoning and analytical skills, students will be recommended to take AGEC115 (Ag Econ Decision Tools) prior to this class. This will enable instruction to focus on application of skills.

IMPACT: None.
EFFECTIVE DATE: Fall 2012

## Animal Sciences \& Industry

FROM: ASI 533. Anatomy and Physiology. (4) I, II. General anatomy and physiology of the domestic animals. Three hours recitation and three hours lab week. K-State 8: Natural and Physical Sciences.

TO: ASI 533. Anatomy and Physiology. (4) I, II. General anatomy and physiology of the domestic animals. Three hours lecture a week and two hours lab a week. K-State 8: Natural and Physical Sciences.

RATIONALE: The catalog states under "note" that this course is "three hours of recitation and three hours of lab a week." It should actually read "three hours of lecture a week and two hours of lab a week." This modification better represents how the course is actually taught. It has no impact on other colleges and creates no change in credit hours.

IMPACT: No impact.
EFFECTIVE DATE: Fall 2012

ADD: FDSCI 101. Food Science \& Industry Orientation. (1) I. Introduction to the food science \& industry programs, activities, resources, faculty and career opportunities. Required of all freshmen in food science \& industry.

RATIONALE: This course will introduce students in the food science program to university resources, activities, faculty, and career opportunities. It will be a replacement for GENAG 101 for food science majors in their curriculum, there will be no net increase in credit hours required.

IMPACT: No impact.
EFFECTIVE DATE: Fall 2012

## Agricultural Economics

## B.S. in Agribusiness: Agribusiness Option

## FROM:

Agricultural Economics (24 credit hours)
AGEC 105 - Agricultural Economics and Agribusiness
Orientation (1)
AGEC 120 - Agricultural Economics and Agribusiness
(3)

AGEC 315 - Contemporary Issues in Global Food and Agricultural Systems (3)

AGEC 318 - Food and Agribusiness Management (3)
AGEC 490-Computer Applications in Agriculturat Economics and Agribusiness (2)

AGEC 500 - Production Economics (3)
AGEC 505 - Agricultural Market Structures (3)
AGEC 515 - Food and Agribusiness Marketing (3)

AGEC 599 - Food and Agribusiness Management Strategies (3)

Agricultural Economics Electives (15 credit hours)

AGEC 410 - Agricultural Policy (3)
AGEC 415 - The Global Agricultural Economy, Hunger, and Poverty (3) [discontinued Fall 2012]

AGEC 420 - Commodity Futures (3)
AGEC 460 - International Food and Agribusiness Study Tour (0-6) (Limit 3 credit hours)

AGEC 513 - Agricultural Finance (3)
AGEC 516 - Agricultural Law and Economics (3)
AGEC 520 - Market Fundamentals and Futures/Options Trading (3)

AGEC 525 - Natural Resource and Environmental

TO:
Agricultural Economics ( $\underline{77}$ credit hours)
AGEC 105 - Agricultural Economics and Agribusiness Orientation (1)

AGEC 115 - Decision Tools for Agricultural Economics and Agribusiness (2)

AGEC 120 - Agricultural Economics and Agribusiness (3) or
AGEC 121 - Honors Agricultural Economics and Agribusiness (3)

AGEC 315 - Contemporary Issues in Global Food and Agricultural Systems (3)

AGEC 318 - Food and Agribusiness Management (3)
AGEC 500 - Production Economics (3)
AGEC 501 - Data Analysis and Optimization (3)
AGEC 505 - Agricultural Market Structures (3)
AGEC 515 - Food and Agribusiness Marketing (3) or
AGEC 570 - Food Manufacturing, Distribution and Retailing (3)

AGEC 599 - Food and Agribusiness Management Strategies (3)

Agricultural Economics Electives (15 credit hours)
Include at least one numbered 598 or above
AGEC 410 - Agricultural Policy (3)
AGEC 420 - Commodity Futures (3)
AGEC 460 - International Food and Agribusiness Study Tour (0-6) (Limit 3 credit hours)

AGEC 513 - Agricultural Finance (3)
AGEC 515 - Food and Agribusiness Marketing Credits: (3)

AGEC 516 - Agricultural Law and Economics (3)
AGEC 520 - Market Fundamentals and Futures/Options Trading (3)

AGEC 525 - Natural Resource and Environmental

Economics (3)
AGEC 570 - Food Manufacturing, Distribution and Retailing (3)

AGEC 598 - Farm Management Strategies (3)
AGEC 605 - Price Analysis and Forecasting (3)
AGEC 610 - Current Agriculture and Natural Resource Policy Issues (3)

AGEC 615 - Global Agricultural Development (3) [Effective Fall 2012]

AGEC 623 - International Agricultural Trade (3)
AGEC 632 - Agribusiness Logistics (3)
AGEC 680 - Risk Management (3)
AGEC 710 - Comparative Food and Agriculture Systems (3)

AGEC 712 - Optimization Techniques for Agricultural Economics (3)

ECON 631 - Principles of Transportation (3)
GENAG 515 - Honors/Scholars Project (2)

Agricultural and Food Science Technology Restricted Electives (6 credit hours)

AGRON 220 - Crop Science (4)
or
HORT 201 - Principles of Horticultural Science (4)
AGRON 305 - Soils (4)
AGRON 330 - Weed Science (3)
ASI 102 - Principles of Animal Science (3)
ASI 105 - Animal Sciences and Industry (1)
ASI 106 - Dairy and Poultry Science (1)
ASI 318 - Fundamentals of Nutrition (3)
ASI 320 - Principles of Feeding (3)
ATM 160 - Engineered Systems and Technology in Agriculture (3)

FDSCI 302 - Introduction to Food Science (3)
FDSCI 305 - Fundamentals of Food Processing (3)
GRSC 101 - Introduction to Grain Science and Industry (3)

Economics (3)
AGEC 570 - Food Manufacturing, Distribution and Retailing (3)

AGEC 598 - Farm Management Strategies: (3)
AGEC 605 - Price Analysis and Forecasting (3)
AGEC 610 - Current Agriculture and Natural Resource Policy Issues (3)

AGEC 615 - Global Agricultural Development (3)
AGEC 623 - International Agricultural Trade (3)
AGEC 632 - Agribusiness Logistics (3)
AGEC 680 - Risk Management (3)
AGEC 710-Comparative Food and Agriculture Systems (3)

AGEC 712 - Optimization Techniques for Agricultural Economics (3)

ECON 631 - Principles of Transportation (3)
GENAG 515 - Honors/Scholars Project (2)

Agricultural and Food Science Technology Restricted Electives (6 credit hours)

AGRON 220 - Crop Science (4) or
HORT 201 - Principles of Horticultural Science (4)
AGRON 305 - Soils (4)
AGRON 330 - Weed Science (3)
ASI 102 - Principles of Animal Science (3)
ASI 105 - Animal Sciences and Industry (1)
ASI 106 - Dairy and Poultry Science (1)
ASI 318 - Fundamentals of Nutrition (3)
ASI 320 - Principles of Feeding (3)
ATM 160 - Engineered Systems and Technology in Agriculture (3)

FDSCI 302 - Introduction to Food Science (3)
FDSCI 305 - Fundamentals of Food Processing (3)
GRSC 101 - Introduction to Grain Science and Industry (3)

See department list for other courses.

Agricultural and Food Science Technology or Business (>300 level) Electives (6 credit hours)

Select from any non-AGEC courses in agriculture not used in Ag and Food Science Technology restricted electives, HN 132, HN 301, or any College of Business class (>300 level).

Communication (14 credit hours)
ENGL 100 - Expository Writing I (3)
ENGL 200 - Expository Writing II (3)
COMM 105 - Public Speaking IA (2)
Communication Elective (3)
Select from: English (above 200), Communication studies (above 300) or a modern language

AGCOM 400 - Agricultural Business Communications (3)
or
ENGL 516 - Written Communication for the Sciences (3)

Economics/Business (21 credit hours)
ECON 110 - Principles of Macroeconomics (3)
ECON 510 - Intermediate Macroeconomics (3)
ACCTG 231 - Accounting for Business Operations (3)
ACCTG 241 - Accounting for Investing and Financing (3)

MANGT 420 - Management Concepts (3)
ACCTG, FINAN, MANGT, OR MKTG Elective (300level or above) (3)

ACCTG, FINAN, MANGT, OR MKTG (500-level or above) (3)

Finance Overlay
AGEC 513 - Agricultural Finance (3) or
FINAN 450 - Principles of Finance (3)
Mathematics/Statistics (6-12 credit hours)
MATH 100 - College Algebra (3)
MATH 205 - General Calculus and Linear Algebra (3)

See department list for other courses.

Agricultural and Food Science Technology or Business (>300 level) Electives (6 credit hours)

Select from any non-AGEC courses in agriculture not used in Ag and Food Science Technology restricted electives, HN 132, HN 301, or any College of Business class (>300 level).

Communication (14 credit hours)
ENGL 100 - Expository Writing I (3)
ENGL 200 - Expository Writing II (3)
COMM 105 - Public Speaking IA (2)
Communication Elective (3)
Select from: English (above 200), Communication studies (above 300) or a modern language

AGCOM 400 - Agricultural Business Communications (3)
or
ENGL 516 - Written Communication for the Sciences (3)

Economics/Business (21 credit hours)
ECON 110 - Principles of Macroeconomics (3)
ECON 510 - Intermediate Macroeconomics (3)
ACCTG 231 - Accounting for Business Operations (3)
ACCTG 241 - Accounting for Investing and Financing (3)

MANGT 420 - Management Concepts (3)
ACCTG, FINAN, MANGT, OR MKTG Elective (300level or above) (3)

ACCTG, FINAN, MANGT, OR MKTG (500-level or above) (3)

Finance Overlay
AGEC 513 - Agricultural Finance (3) or
FINAN 450 - Principles of Finance (3)
Mathematics/Statistics (6-9 credit hours)
MATH 100 - College Algebra (3)
MATH 205 - General Calculus and Linear Algebra (3)

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STAT 350 - Business and Economic Statistics I (3)
    and
STAT 351 - Business and Economic Statistics II (3)
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Natural Sciences (8 credit hours)
Select a combination of 2 courses for a total of 8 credit hours.

CHM 110 - General Chemistry (3)
and
CHM 111 - General Chemistry Laboratory (1)

BIOL 198 - Principles of Biology (4)
PHYS 113 - General Physics I (4)

Social Sciences/Humanities (9 credit hours)
PSYCH 110 - General Psychology (3)
or
SOCIO 211 - Introduction to Sociology (3)
Social Science Electives (3)
Select from Psychology, Sociology, Political Science, Anthropology, History, Geography, Women's Studies or American Ethnic Studies or
FSHS 350 - Family Relationships and Gender Roles (3)
Humanities Electives (3)
Select from History, Music, Art, English (above 210), Philosophy, Theatre, Dance, Modern Language
or
ARCH 301 - Appreciation of Architecture (3)
Unrestricted electives as needed to meet 127 credit hours

Total credit hours required for graduation (127)

STAT 350 - Business and Economic Statistics I (3)

Natural Sciences (8 credit hours)
Select a combination of 2 courses for a total of 8 credit hours.

CHM 110 - General Chemistry (3) and
CHM 111 - General Chemistry Laboratory (1)
BIOL 198 - Principles of Biology (4)
PHYS 113 - General Physics I (4)

Social Sciences/Humanities (9 credit hours)
PSYCH 110 - General Psychology (3)
or
SOCIO 211 - Introduction to Sociology (3)
Social Science Electives (3)
Select from Psychology, Sociology, Political Science, Anthropology, History, Geography, Women's Studies or American Ethnic Studies or
FSHS 350 - Family Relationships and Gender Roles (3)

Humanities Electives (3)
Select from History, Music, Art, English (above
210), Philosophy, Theatre, Dance, Modern Language
or
ARCH 301 - Appreciation of Architecture (3)

Unrestricted electives as needed to meet 127 credit hours

Total credit hours required for graduation (127)

RATIONALE: The curriculum is revised to provide enhanced opportunities for students to acquire strong quantitative reasoning and analytical skills, which are increasingly called for by their employers. To provide foundation for these skills earlier in the curriculum, a new required course in decision tools (AGEC115) replaces the previously required course in computer applications (AGEC490). A new capstone course on data analysis and optimization (AGEC501) is added, and the statistics requirement is changed from STAT325 to STAT350, given the course content. Also, the change will provide flexibility for students to meet an AGEC requirement by offering them a choice between AGEC515 (Food and Agribusiness Marketing) and AGEC570 (Food Manufacturing, Distribution and Retailing). Another change is to enhance consistency across the options while strengthening the overall curriculum by ensuring that all students in this degree program take at least 2 AGEC courses that are 598 or higher.

IMPACT: The Department Head of Statistics (Jim Neill) was contacted; he responded that the department could accommodate by adding an additional section during fall term. We agreed on October 17 to proceed with this understanding and that the Department of Agricultural Economics will advise their students to enroll in STAT 350 as much as possible in the fall.
EFFECTIVE DATE:

Fall 2012

## B.S. in Agribusiness: Food Industry Option

FROM:
TO:
Agricultural Economics (33 credit hours)
AGEC 105 - Agricultural Economics and Agribusiness
Orientation (1)
AGEC 120 - Agricultural Economics and Agribusiness (3)

AGEC 315 - Contemporary Issues in Global Food and Agricultural Systems (3)

AGEC 318 - Food and Agribusiness Management (3)
AGEC 490-Computer Applications in Agricultural Economics and Agribusiness (2)

AGEC 500 - Production Economics (3)

AGEC 505 - Agricultural Market Structures (3)
AGEC 513 - Agricultural Finance (3)
AGEC 515 - Food and Agribusiness Marketing (3)
AGEC 570 - Food Manufacturing, Distribution and Retailing (3)

AGEC 599 - Food and Agribusiness Management Strategies (3)

AGEC 632 - Agribusiness Logistics (3)

Agricultural Economics Electives (6 credit hours)
AGEC 410 - Agricultural Policy (3)
AGEC 415 - The Global Agricultural Economy,
Hunger, and Poverty (3) [discontinued Fall 2012$]$
AGEC 420 - Commodity Futures (3)
AGEC 460 - International Food and Agribusiness Study Tour (0-6) (Limit 3 credit hours)

AGEC 516 - Agricultural Law and Economics (3)
AGEC 520 - Market Fundamentals and Futures/Options

Agricultural Economics (36 credit hours)
AGEC 105 - Agricultural Economics and Agribusiness Orientation (1)

AGEC 115 - Decision Tools for Agricultural Economics and Agribusiness (2)

AGEC 120 - Agricultural Economics and Agribusiness (3) or
AGEC 121 - Honors Agricultural Economics and Agribusiness (3)

AGEC 315 - Contemporary Issues in Global Food and Agricultural Systems (3)

AGEC 318 - Food and Agribusiness Management (3)

AGEC 500 - Production Economics (3)
AGEC 501 - Data Analysis and Optimization (3)
AGEC 505 - Agricultural Market Structures (3)
AGEC 513 - Agricultural Finance (3)
AGEC 515 - Food and Agribusiness Marketing (3)
AGEC 570 - Food Manufacturing, Distribution and Retailing (3)

AGEC 599 - Food and Agribusiness Management Strategies (3)

AGEC 632 - Agribusiness Logistics (3)

Agricultural Economics Electives (6 credit hours)
AGEC 410 - Agricultural Policy (3)

AGEC 420 - Commodity Futures (3)
AGEC 460 - International Food and Agribusiness Study Tour (0-6) (Limit 3 credit hours)

AGEC 516 - Agricultural Law and Economics (3)
AGEC 520 - Market Fundamentals and Futures/Options

Trading (3)
AGEC 525 - Natural Resource and Environmental Economics (3)

AGEC 598 - Farm Management Strategies (3)
AGEC 605 - Price Analysis and Forecasting (3)
AGEC 610 - Current Agriculture and Natural Resource Policy Issues (3)

AGEC 615 - Global Agricultural Development (3) [Effective Fall 2012]

AGEC 623 - International Agricultural Trade (3)
AGEC 680 - Risk Management (3)
AGEC 710 - Comparative Food and Agriculture Systems (3)

AGEC 712 - Optimization Techniques for Agricultural Economics (3)

ECON 631 - Principles of Transportation (3)
GENAG 515 - Honors/Scholars Project (2)

Food Science and Technology Electives (6 credit hours)
ASI 318 - Fundamentals of Nutrition (3)
ASI 350 - Meat Science (3)
ASI 361 - Meat Animal Processing (2)
ASI 405 - Fundamentals of Milk Processing (3)
FDSCI 302 - Introduction to Food Science (3)
FDSCI 305 - Fundamentals of Food Processing (3)
GRSC 101 - Introduction to Grain Science and Industry (3)

GRSC 150 - Principles of Milling (3)
GRSC 210- CAD Flow Sheets for Grain Processes (3)
GRSC 500 - Milling Science I (4)
HORT 201 - Principles of Horticultural Science (4)
HORT 560 - Vegetable Crop Production (3)
HN 132 - Basic Nutrition (3)

Communication (14 credit hours)

Trading (3)
AGEC 525 - Natural Resource and Environmental Economics (3)

AGEC 598 - Farm Management Strategies (3)
AGEC 605 - Price Analysis and Forecasting (3)
AGEC 610 - Current Agriculture and Natural Resource Policy Issues (3)

AGEC 615 - Global Agricultural Development (3)
AGEC 623 - International Agricultural Trade (3)
AGEC 680 - Risk Management (3)
AGEC 710 - Comparative Food and Agriculture Systems (3)

AGEC 712 - Optimization Techniques for Agricultural Economics (3)

ECON 631 - Principles of Transportation (3)
GENAG 515 - Honors/Scholars Project (2)

Food Science and Technology Electives (6 credit hours)
ASI 318 - Fundamentals of Nutrition (3)
ASI 350 - Meat Science (3)
ASI 361 - Meat Animal Processing (2)
ASI 405 - Fundamentals of Milk Processing (3)
FDSCI 302 - Introduction to Food Science (3)
FDSCI 305 - Fundamentals of Food Processing (3)
GRSC 101 - Introduction to Grain Science and Industry (3)

GRSC 150 - Principles of Milling (3)
GRSC 210- CAD Flow Sheets for Grain Processes (3)
GRSC 500 - Milling Science I (4)
HORT 201 - Principles of Horticultural Science (4)
HORT 560 - Vegetable Crop Production (3)
HN 132 - Basic Nutrition (3)

Communication (14 credit hours)
ENGL 100 - Expository Writing I (3)

ENGL 100 - Expository Writing I (3)
ENGL 200 - Expository Writing II (3)
COMM 105 - Public Speaking IA (2)
Communication Electives (3)
Select from: English (above 200), Communication studies (above 300) or a modern language

AGCOM 400 - Agricultural Business Communications (3) or
ENGL 516 - Written Communication for the Sciences (3)

Economics/Business (27 credit hours)
ECON 110 - Principles of Macroeconomics (3)
ECON 510 - Intermediate Macroeconomics (3)
ACCTG 231 - Accounting for Business Operations (3)
ACCTG 241 - Accounting for Investing and Financing (3)

ACCTG, FINAN, MANGT, OR MKTG (500-level or above) (3)

MANGT 420 - Management Concepts (3)
MKTG 400 - Introduction to Marketing (3)
MKTG 450 - Consumer Behavior (3)
MKTG 541 - Retailing (3)

Mathematics/Statistics (6-12 credit hours)
MATH 100 - College Algebra (3)
MATH 205 - General Calculus and Linear Algebra (3)
STAT 325-Introduction to Statistics (3)
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STAT 350 - Business and Economic Statistics I (3) and
STAT 351 - Business and Economic Statistics II (3)
Natural Sciences (8 credit hours)
Select a combination of 2 courses for a total of 8 credit hours.

CHM 110-General Chemistry (3)
and
CHM 111 - General Chemistry Laboratory (1)
BIOL 198 - Principles of Biology (4)

ENGL 200 - Expository Writing II (3)
COMM 105 - Public Speaking IA (2)
Communication Electives (3)
Select from: English (above 200), Communication studies (above 300) or a modern language

AGCOM 400 - Agricultural Business Communications
(3)
or
ENGL 516 - Written Communication for the Sciences
(3)

Economics/Business (27 credit hours)
ECON 110 - Principles of Macroeconomics (3)
ECON 510 - Intermediate Macroeconomics (3)
ACCTG 231 - Accounting for Business Operations (3)
ACCTG 241 - Accounting for Investing and Financing (3)

ACCTG, FINAN, MANGT, OR MKTG (500-level or above) (3)

MANGT 420 - Management Concepts (3)
MKTG 400 - Introduction to Marketing (3)
MKTG 450 - Consumer Behavior (3)
MKTG 541 - Retailing (3)

Mathematics/Statistics (6-9 credit hours)
MATH 100 - College Algebra (3)
MATH 205 - General Calculus and Linear Algebra (3)

STAT 350 - Business and Economic Statistics I (3)

Natural Sciences (8 credit hours)
Select a combination of 2 courses for a total of 8 credit hours.

CHM 110 - General Chemistry (3) and
CHM 111 - General Chemistry Laboratory (1)
BIOL 198 - Principles of Biology (4)

PHYS 113 - General Physics I (4)

Social Sciences/Humanities (9 credit hours)
PSYCH 110 - General Psychology (3)
or
SOCIO 211 - Introduction to Sociology (3)
Social Science Electives: (3)
Select from Psychology, Sociology, Political Science, Anthropology, History, Geography, Women's Studies or American Ethnic Studies or
FSHS 350 - Family Relationships and Gender Roles (3)
Humanities Electives (3)
Select from History, Music, Art, English (above
210), Philosophy, Theatre, Dance, Modern

Language
or
ARCH 301 - Appreciation of Architecture (3)
Unrestricted electives as needed to meet 127 credit hours

Total credit hours required for graduation (127)

PHYS 113 - General Physics I (4)

Social Sciences/Humanities (9 credit hours)
PSYCH 110 - General Psychology (3)
or
SOCIO 211 - Introduction to Sociology (3)
Social Science Electives: (3)
Select from Psychology, Sociology, Political Science, Anthropology, History, Geography, Women's Studies or American Ethnic Studies or
FSHS 350 - Family Relationships and Gender Roles (3)
Humanities Electives: (3)
Select from History, Music, Art, English (above
210), Philosophy, Theatre, Dance, Modern

Language
or
ARCH 301 - Appreciation of Architecture (3)
Unrestricted electives as needed to meet 127 credit hours

Total credit hours required for graduation (127)

RATIONALE: The curriculum is revised to provide enhanced opportunities for students to acquire strong quantitative reasoning and analytical skills, which are increasingly called for by their employers. To provide foundation for these skills earlier in the curriculum, a new required course in decision tools (AGEC115) replaces the previously required course in computer applications (AGEC490). A new capstone course on data analysis and optimization (AGEC501) is added, and the statistics requirement is changed from STAT325 to STAT350, given the course content.

IMPACT:
The Department Head of Statistics (Jim Neill) was contacted; he responded that the department could accommodate by adding an additional section during fall term. We agreed on October 17 to proceed with this understanding and that the Department of Agricultural Economics will advise their students to enroll in STAT 350 as much as possible in the fall.

DATE EFFECTIVE: Fall 2012

## B.S. in Agribusiness: International Option

FROM:
Agricultural Economics (30 credit hours)
AGEC 105-Agricultural Economics and Agribusiness Orientation (1)

AGEC 120 - Agricultural Economics and Agribusiness (3)

AGEC 315 - Contemporary Issues in Global Food and Agricultural Systems (3)

AGEC 318 - Food and Agribusiness Management (3)
AGEC 415 - The Global Agricultural Economy,
Henger, and Poverty (3) [discontinued Fall 2012$]$
AGEC 490-Computer Applications in Agricultural Economies and Agribusiness (2)

AGEC 500 - Production Economics (3)

AGEC 505 - Agricultural Market Structures (3)
AGEC 515 - Food and Agribusiness Marketing (3)

AGEC 599 - Food and Agribusiness Management Strategies (3)

AGEC 615 - Global Agricultural Development (3) [Effective Fall 2012]

AGEC 623 - International Agricultural Trade (3)
Agricultural Economics Electives (9 credit hours)
AGEC 410 - Agricultural Policy (3)
AGEC 420 - Commodity Futures (3)
AGEC 460 - International Food and Agribusiness Study Tour (0-6) (Limit 3 credit hours)

AGEC 513 - Agricultural Finance (3)

AGEC 516 - Agricultural Law and Economics (3)

TO:
Agricultural Economics (33 credit hours)
AGEC 105-Agricultural Economics and Agribusiness Orientation (1)

AGEC 115 - Decision Tools for Agricultural
Economics and Agribusiness (2)
AGEC 120 - Agricultural Economics and Agribusiness (3)
$\stackrel{\underline{\text { or }}}{\text { AGEC }} 121$ - Honors Agricultural Economics and
Agribusiness (3)
AGEC 315 - Contemporary Issues in Global Food and Agricultural Systems (3)

AGEC 318 - Food and Agribusiness Management (3)

AGEC 500 - Production Economics (3)
AGEC 501 - Data Analysis and Optimization (3)
AGEC 505 - Agricultural Market Structures (3)
AGEC 515 - Food and Agribusiness Marketing (3)
AGEC 570 - Food Manufacturing, Distribution and Retailing (3)

AGEC 599 - Food and Agribusiness Management Strategies (3)

AGEC 615 - Global Agricultural Development (3)
AGEC 623 - International Agricultural Trade (3)

Agricultural Economics Electives (9 credit hours)
AGEC 410 - Agricultural Policy (3)
AGEC 420 - Commodity Futures (3)
AGEC 460 - International Food and Agribusiness Study Tour Credits: (0-6) (Limit 3 credit hours)

AGEC 513 - Agricultural Finance (3)
AGEC 515 - Food and Agribusiness Marketing (3)
AGEC 516 - Agricultural Law and Economics (3)

AGEC 520 - Market Fundamentals and Futures/Options Trading (3)

AGEC 525 - Natural Resource and Environmental Economics (3)

AGEC 570 - Food Manufacturing, Distribution and Retailing (3)

AGEC 598 - Farm Management Strategies (3)
AGEC 605 - Price Analysis and Forecasting (3)
AGEC 610 - Current Agriculture and Natural Resource Policy Issues (3)

AGEC 615 - Global Agricultural Development (3)
[Effective Fall 2012]

AGEC 632 - Agribusiness Logistics (3)

AGEC 680 - Risk Management (3)
AGEC 710 - Comparative Food and Agriculture Systems (3)

AGEC 712 - Optimization Techniques for Agricultural Economics (3)

ECON 631 - Principles of Transportation (3)
GENAG 515 - Honors/Scholars Project (2)
Agricultural and Food Science Technology Restricted Electives (6 credit hours)

AGRON 220 - Crop Science (4)
or
HORT 201 - Principles of Horticultural Science (4)
AGRON 305 - Soils (4)
AGRON 330 - Weed Science (3)
ASI 102 - Principles of Animal Science (3)

ASI 105 - Animal Sciences and Industry (1)
ASI 106 - Dairy and Poultry Science (1)
ASI 318 - Fundamentals of Nutrition (3)
ASI 320 - Principles of Feeding (3)
ATM 160 - Engineered Systems and Technology in Agriculture (3)

FDSCI 302 - Introduction to Food Science (3)

FDSCI 305 - Fundamentals of Food Processing (3)
GRSC 101 - Introduction to Grain Science and Industry

AGEC 520 - Market Fundamentals and Futures/Options Trading (3)

AGEC 525 - Natural Resource and Environmental Economics Credits: (3)

AGEC 570 - Food Manufacturing, Distribution and Retailing (3)

AGEC 598 - Farm Management Strategies (3)
AGEC 605 - Price Analysis and Forecasting (3)
AGEC 610 - Current Agriculture and Natural Resource Policy Issues (3)

AGEC 615 - Global Agricultural Development Credits: (3)

AGEC 632 - Agribusiness Logistics (3)

AGEC 680 - Risk Management (3)
AGEC 710 - Comparative Food and Agriculture Systems (3)

AGEC 712 - Optimization Techniques for Agricultural Economics (3)

ECON 631 - Principles of Transportation (3)
GENAG 515 - Honors/Scholars Project (2)
Agricultural and Food Science Technology Restricted Electives (6 credit hours)

AGRON 220 - Crop Science (4)
or
HORT 201 - Principles of Horticultural Science (4)

AGRON 305 - Soils (4)
AGRON 330 - Weed Science (3)
ASI 102 - Principles of Animal Science (3)

ASI 105 - Animal Sciences and Industry (1)
ASI 106 - Dairy and Poultry Science (1)
ASI 318 - Fundamentals of Nutrition (3)
ASI 320 - Principles of Feeding (3)
ATM 160 - Engineered Systems and Technology in Agriculture (3)

FDSCI 302 - Introduction to Food Science (3)

FDSCI 305 - Fundamentals of Food Processing (3)
GRSC 101 - Introduction to Grain Science and Industry
(3)

See department list for other courses.
Communication (14 credit hours)
ENGL 100 - Expository Writing I (3)
ENGL 200 - Expository Writing II (3)
COMM 105 - Public Speaking IA (2)
Communication elective (3)
Select from: English (above 200), Communication studies (above 300) or a modern language

AGCOM 400 - Agricultural Business Communications (3) or
ENGL 516 - Written Communication for the Sciences (3)

Economics/Business (21 credit hours)
ECON 110 - Principles of Macroeconomics (3)
ECON 510 - Intermediate Macroeconomics (3)
ACCTG 231 - Accounting for Business Operations (3)
ACCTG 241 - Accounting for Investing and Financing (3)

MANGT 420 - Management Concepts (3)
ACCTG, FINAN, MANGT, OR MKTG Elective (300level or above) (3)

MKTG 544 - International Marketing (3) or
MANGT 690 - International Management (3)
or
FINAN 643 - International Financial Management (3)
Finance Overlay
AGEC 513 - Agricultural Finance (3) or
FINAN 450 - Principles of Finance (3)
Mathematics/Statistics (6-12 credit hours)
MATH 100 - College Algebra (3)
MATH 205 - General Calculus and Linear Algebra (3)
STAT 325-Introduction to Statistics (3)
өf
STAT 350 - Business and Economic Statistics I (3)
and
STAT 351-Business and Economic Statistics II (3)
Natural Sciences (8 credit hours)

Credits: (3)
See department list for other courses.
Communication (14 credit hours)
ENGL 100 - Expository Writing I (3)
ENGL 200 - Expository Writing II (3)
COMM 105 - Public Speaking IA (2)
Communication elective Credits: (3) Select from: English (above 200), Communication studies (above 300) or a modern language

AGCOM 400 - Agricultural Business Communications (3)
or
ENGL 516 - Written Communication for the Sciences (3)

Economics/Business (21 credit hours)
ECON 110 - Principles of Macroeconomics 3)
ECON 510 - Intermediate Macroeconomics (3)
ACCTG 231 - Accounting for Business Operations (3)
ACCTG 241 - Accounting for Investing and Financing (3)

MANGT 420 - Management Concepts (3)
ACCTG, FINAN, MANGT, OR MKTG Elective (300level or above) (3)

MKTG 544 - International Marketing (3) or
MANGT 690 - International Management (3) or
FINAN 643 - International Financial Management (3)
Finance Overlay
AGEC 513 - Agricultural Finance (3) or
FINAN 450 - Principles of Finance (3)
Mathematics/Statistics (6-12 $\underline{9}$ credit hours)
MATH 100 - College Algebra (3)
MATH 205 - General Calculus and Linear Algebra (3)

STAT 350 - Business and Economic Statistics I (3)

Natural Sciences (8 credit hours)

Select a combination of 2 courses for a total of 8 credit hours.

CHM 110 - General Chemistry (3) and
CHM 111 - General Chemistry Laboratory (1)
BIOL 198 - Principles of Biology (4)
PHYS 113 - General Physics I (4)
Social Sciences/Humanities (9 credit hours)
PSYCH 110 - General Psychology (3)
or
SOCIO 211 - Introduction to Sociology (3)

GEOG 100 - World Regional Geography (3)

Humanities elective (3)
Select from History, Music, Art, English (above
210), Philosophy, Theatre, Dance, Modern Language
or
ARCH 301 - Appreciation of Architecture (3)
International Experience (3 credit hours)
Language Requirement: Level III proficiency
Unrestricted electives as needed to meet 127 credit hours

Total credit hours required for graduation (127)

Select a combination of 2 courses for a total of 8 credit hours.

```
CHM 110 - General Chemistry (3)
    and
CHM 111 - General Chemistry Laboratory (1)
BIOL 198-Principles of Biology (4)
PHYS 113 - General Physics I (4)
Social Sciences/Humanities (9 credit hours)
PSYCH 110-General Psychology (3)
    or
SOCIO 211 - Introduction to Sociology (3)
GEOG 100 - World Regional Geography (3)
Humanities elective Credits: (3)
    Select from History, Music, Art, English (above
210), Philosophy, Theatre, Dance, Modern Language
    or
ARCH 301 - Appreciation of Architecture (3)
International Experience (3 credit hours)
Language Requirement: Level III proficiency
Unrestricted electives as needed to meet }127\mathrm{ credit
hours
Total credit hours required for graduation (127)
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## RATIONALE: The curriculum is revised to provide enhanced opportunities for students to acquire strong quantitative

 reasoning and analytical skills, which are increasingly called for by their employers. To provide foundation for these skills earlier in the curriculum, a new required course in decision tools (AGEC115) replaces the previously required course in computer applications (AGEC490). A new capstone course on data analysis and optimization (AGEC501) is added, and the statistics requirement is changed from STAT325 to STAT350, given the course content. Also, the change will provide flexibility for students to meet an AGEC requirement by offering them a choice between AGEC515 (Food and Agribusiness Marketing) and AGEC570 (Food Manufacturing, Distribution and Retailing).IMPACT: The Department Head of Statistics (Jim Neill) was contacted; he responded that the department could accommodate by adding an additional section during fall term. We agreed on October 17 to proceed with this understanding and that the Department of Agricultural Economics will advise their students to enroll in STAT 350 as much as possible in the fall.

EFFECTIVE DATE: Fall 2012

## B.S. in Agriculture: Agricultural Economics Major

Farm Management Option

FROM:
Agricultural Economics (24 credit hours)
AGEC 105 - Agricultural Economics and Agribusiness Orientation (1)

AGEC 120 - Agricultural Economics and Agribusiness (3)

AGEC 315 - Contemporary Issues in Global Food and Agricultural Systems (3)

AGEC 308 - Farm and Ranch Management (3)
AGEC 490 - Computer Applieations in Agrieuttural
Economics and Agribusiness (2)
AGEC 500 - Production Economics (3)

AGEC 505 - Agricultural Market Structures (3)
AGEC 513 - Agricultural Finance (3)
AGEC 598 - Farm Management Strategies (3)

Agricultural Economics Electives (15 credit hours)
Include at least one numbered 600 or above.
AGEC 410 - Agricultural Policy (3)
AGEC 415-The Global Agricultural Economy, Hunger, and Poverty (3) [discontinued Fall 2012]

AGEC 420 - Commodity Futures (3)
AGEC 460 - International Food and Agribusiness Study Tour Credits: (0-6) (Limit 3 credit hours)

AGEC 515 - Food and Agribusiness Marketing (3)
AGEC 516 - Agricultural Law and Economics (3)
AGEC 520 - Market Fundamentals and Futures/Options Trading (3)

AGEC 525 - Natural Resource and Environmental Economics (3)

AGEC 570 - Food Manufacturing, Distribution and

TO:
Agricultural Economics (27 credit hours)
AGEC 105 - Agricultural Economics and Agribusiness Orientation (1)

AGEC 115 - Decision Tools for Agricultural Economics and Agribusiness (2)

AGEC 120 - Agricultural Economics and Agribusiness (3)

AGEC 121 - Honors Agricultural Economics and Agribusiness (3)

AGEC 315 - Contemporary Issues in Global Food and Agricultural Systems (3)

AGEC 308 - Farm and Ranch Management (3)

AGEC 500 - Production Economics (3)
AGEC 501 - Data Analysis and Optimization (3)
AGEC 505 - Agricultural Market Structures (3)
AGEC 513 - Agricultural Finance (3)
AGEC 598 - Farm Management Strategies (3)

Agricultural Economics Electives (15 credit hours) Include at least one numbered 600 or above.

AGEC 410 - Agricultural Policy (3)

AGEC 420 - Commodity Futures (3)
AGEC 460 - International Food and Agribusiness Study Tour Credits: (0-6) (Limit 3 credit hours)

AGEC 515 - Food and Agribusiness Marketing (3)
AGEC 516 - Agricultural Law and Economics (3)
AGEC 520 - Market Fundamentals and Futures/Options Trading (3)

AGEC 525 - Natural Resource and Environmental Economics (3)

AGEC 570 - Food Manufacturing, Distribution and

Retailing (3)
AGEC 599 - Food and Agribusiness Management Strategies: (3)

AGEC 605 - Price Analysis and Forecasting (3)
AGEC 610 - Current Agriculture and Natural Resource Policy Issues (3)

AGEC 615 - Global Agricultural Development (3)
[Effective Fall 2012]
AGEC 623 - International Agricultural Trade (3)
AGEC 632 - Agribusiness Logistics (3)
AGEC 680 - Risk Management (3)
AGEC 710 - Comparative Food and Agriculture Systems (3)

AGEC 712 - Optimization Techniques for Agricultural Economics (3)

ECON 631 - Principles of Transportation (3)
GENAG 515 - Honors/Scholars Project (2)
Agriculture (15 credit hours)
AGRON 220 - Crop Science (4)
AGRON 305 - Soils (4)
ASI 102 - Principles of Animal Science (3)
ASI 105 - Animal Sciences and Industry (1)
or
ASI 106 - Dairy and Poultry Science (1)
ATM 160 - Engineered Systems and Technology in Agriculture (3)

Agricultural and Food Science Technology Restricted Electives (9 credit hours)

AGRON 330 - Weed Science (3)
AGRON 375 - Soil Fertility (3)
AGRON 501 - Ranch Management (3)
ASI 318 - Fundamentals of Nutrition (3)
ASI 320 - Principles of Livestock Feeding (3)
ASI 400 - Farm Animal Reproduction (4)
ASI 515 - Beef Science (3)
ASI 535 - Swine Science (3)

Retailing (3)
AGEC 599 - Food and Agribusiness Management Strategies (3)

AGEC 605 - Price Analysis and Forecasting (3)
AGEC 610 - Current Agriculture and Natural Resource Policy Issues (3)

AGEC 615 - Global Agricultural Development (3)
AGEC 623 - International Agricultural Trade (3)
AGEC 632 - Agribusiness Logistics (3)
AGEC 680 - Risk Management (3)
AGEC 710 - Comparative Food and Agriculture Systems (3)

AGEC 712 - Optimization Techniques for Agricultural Economics (3)

ECON 631 - Principles of Transportation (3)
GENAG 515 - Honors/Scholars Project (2)
Agriculture (15 credit hours)
AGRON 220 - Crop Science (4)
AGRON 305 - Soils (4)
ASI 102 - Principles of Animal Science (3)
ASI 105 - Animal Sciences and Industry (1) or
ASI 106 - Dairy and Poultry Science (1)
ATM 160 - Engineered Systems and Technology in
Agriculture (3)

Agricultural and Food Science Technology Restricted Electives (9 credit hours)

AGRON 330 - Weed Science (3)
AGRON 375 - Soil Fertility (3)
AGRON 501 - Ranch Management (3)
ASI 318 - Fundamentals of Nutrition (3)
ASI 320 - Principles of Livestock Feeding (3)
ASI 400 - Farm Animal Reproduction (4)
ASI 515 - Beef Science (3)
ASI 535 - Swine Science (3)

ENTOM 300 - Economic Entomology (3)
PLPTH 500 - Principles of Plant Pathology (3)
BAE 350 - Agricultural Machinery Systems (2)
BAE 351 - Agricultural Machinery Systems Lab (1)
ATM 511 - Agricultural Building Systems (3)
ATM 545 - Processing and Storage of Grains (3)
ATM 653 - Water Management and Irrigation Systems (3)

ATM 661 - Watershed Management (3)
See department list for other courses.
Communication (14 credit hours)
ENGL 100 - Expository Writing I (3)
ENGL 200 - Expository Writing II (3)
COMM 105 - Public Speaking IA (2)
Communication elective (3)
Select from: English (above 200), Communication studies (above 300) or a modern language

AGCOM 400 - Agricultural Business Communications (3)

## or

ENGL 516 - Written Communication for the Sciences (3)

Economics/Business (12 credit hours)
ECON 110 - Principles of Macroeconomics (3)
ECON 510 - Intermediate Macroeconomics (3)
ACCTG 231 - Accounting for Business Operations (3) ACCTG 241 - Accounting for Investing and Financing (3)

Mathematics/Statistics (6-12 credit hours)
MATH 100 - College Algebra (3)
MATH 205 - General Calculus and Linear Algebra (3)
STAT 325-Introduction to Statisties (3) өf
STAT 350 - Business and Economic Statistics I (3) and
STAT 351 - Business and Economic Statistics II (3)

Natural Sciences (8 credit hours)

ENTOM 300 - Economic Entomology (3)
PLPTH 500 - Principles of Plant Pathology (3)
BAE 350 - Agricultural Machinery Systems (2)
BAE 351 - Agricultural Machinery Systems Lab (1)
ATM 511 - Agricultural Building Systems: (3)
ATM 545 - Processing and Storage of Grains (3)
ATM 653 - Water Management and Irrigation Systems (3)

ATM 661 - Watershed Management (3)
See department list for other courses.

Communication (14 credit hours)
ENGL 100 - Expository Writing I (3)
ENGL 200 - Expository Writing II (3)
COMM 105 - Public Speaking IA (2)
Communication elective (3)
Select from: English (above 200), Communication studies (above 300) or a modern language
AGCOM 400 - Agricultural Business Communications (3)
or
ENGL 516 - Written Communication for the Sciences (3)

Economics/Business (12 credit hours)
ECON 110 - Principles of Macroeconomics (3)
ECON 510 - Intermediate Macroeconomics (3)
ACCTG 231 - Accounting for Business Operations (3)
ACCTG 241 - Accounting for Investing and Financing
(3)

Mathematics/Statistics ( $\underline{9}$ credit hours)
MATH 100 - College Algebra (3)
MATH 205 - General Calculus and Linear Algebra (3)

STAT 350 - Business and Economic Statistics I (3)

Natural Sciences (8 credit hours)

Select a combination of 2 courses for a total of 8 credit hours.

CHM 110-General Chemistry (3) and
CHM 111 - General Chemistry Laboratory (1)
BIOL 198 - Principles of Biology (4)
PHYS 113 - General Physics I (4)
Social Sciences/Humanities (9 credit hours)
PSYCH 110 - General Psychology (3)
or
SOCIO 211 - Introduction to Sociology (3)
Social Science elective (3)
Select from Psychology, Sociology, Political Science, Anthropology, History, Geography, Women’s Studies or American Ethnic Studies or
FSHS 350 - Family Relationships and Gender Roles (3)
Humanities elective (3)
Select from History, Music, Art, English (above
210), Philosophy, Theatre, Dance, Modern Language or
ARCH 301 - Appreciation of Architecture (3)
Unrestricted electives as needed to meet 127 credit hours
Total credit hours required for graduation (127)

Select a combination of 2 courses for a total of 8 credit hours.

CHM 110 - General Chemistry (3)
and
CHM 111 - General Chemistry Laboratory (1)
BIOL 198 - Principles of Biology (4)
PHYS 113 - General Physics I (4)
Social Sciences/Humanities (9 credit hours)
PSYCH 110 - General Psychology Credits: (3)
or
SOCIO 211 - Introduction to Sociology Credits: (3)
Social Science elective: (3)
Select from Psychology, Sociology, Political Science, Anthropology, History, Geography, Women’s Studies or American Ethnic Studies or
FSHS 350 - Family Relationships and Gender Roles 3)
Humanities elective (3)
Select from History, Music, Art, English (above
210), Philosophy, Theatre, Dance, Modern Language or
ARCH 301 - Appreciation of Architecture (3)
Unrestricted electives as needed to meet 127 credit hours
Total credit hours required for graduation (127)

RATIONALE: The curriculum is revised to provide enhanced opportunities for students to acquire strong quantitative reasoning and analytical skills, which are increasingly called for by their employers. To provide foundation for these skills earlier in the curriculum, a new required course in decision tools (AGEC115) replaces the previously required course in computer applications (AGEC490). A new capstone course on data analysis and optimization (AGEC501) is added, and the statistics requirement is changed from STAT325 to STAT350, given the course content.

IMPACT: The Department Head of Statistics (Jim Neill) was contacted; he responded that the department could accommodate by adding an additional section during fall term. We agreed on October 17 to proceed with this understanding and that the Department of Agricultural Economics will advise their students to enroll in STAT 350 as much as possible in the fall.

EFFECTIVE DATE: Fall 2012

## B.S. in Agriculture: Agricultural Economics Major <br> Specialty Option: Natural Resources and Environmental Sciences

FROM:
Agricultural Economics (18 credit hours)
AGEC 105 - Agricultural Economics and Agribusiness Orientation (1)

AGEC 120 - Agricultural Economics and Agribusiness (3)

AGEC 315 - Contemporary Issues in Global Food and Agricultural Systems (3)

AGEC 490-Computer Applications in Agricultural Economics and Agribusiness (2)

AGEC 500 - Production Economics (3)

AGEC 505 - Agricultural Market Structures (3)
AGEC 525 - Natural Resource and
Environmental Economics (3)
Agricultural Economics Electives (18 credit hours)
Include at least two numbered 598 or above
AGEC 308 - Farm and Ranch Management (3)
AGEC 318 - Food and Agribusiness Management (3)
AGEC 410 - Agricultural Policy (3)
AGEC 415-The Global Agricultural Economy, Hunger, and Poverty Credits: (3) [discontinued Fall 2012]

AGEC 420 - Commodity Futures (3)
AGEC 460 - International Food and Agribusiness Study
Tour Credits: (0-6) (Limit 3 credit hours)
AGEC 513 - Agricultural Finance (3)
AGEC 515 - Food and Agribusiness Marketing (3)
AGEC 516 - Agricultural Law and Economics (3)
AGEC 520 - Market Fundamentals and Futures/Options Trading (3)

AGEC 570 - Food Manufacturing, Distribution and Retailing (3)

TO:
Agricultural Economics (21 credit hours)
AGEC 105 - Agricultural Economics and Agribusiness Orientation (1)

AGEC 115 - Decision Tools for Agricultural Economics and Agribusiness (2)

AGEC 120 - Agricultural Economics and Agribusiness (3)

AGEC 121 - Honors Agricultural Economics and Agribusiness (3)

AGEC 315 - Contemporary Issues in Global Food and Agricultural Systems (3)

AGEC 500 - Production Economics (3)
AGEC 501 - Data Analysis and Optimization (3)
AGEC 505 - Agricultural Market Structures (3)
AGEC 525 - Natural Resource and Environmental Economics (3)

Agricultural Economics Electives (18 credit hours)
Include at least two numbered 598 or above
AGEC 308 - Farm and Ranch Management Credits: (3)
AGEC 318 - Food and Agribusiness Management (3)
AGEC 410 - Agricultural Policy (3)

AGEC 420 - Commodity Futures (3)
AGEC 460 - International Food and Agribusiness Study Tour Credits: (0-6) (Limit 3 credit hours)

AGEC 513 - Agricultural Finance (3)
AGEC 515 - Food and Agribusiness Marketing (3)
AGEC 516 - Agricultural Law and Economics (3)
AGEC 520 - Market Fundamentals and Futures/Options Trading (3)

AGEC 570 - Food Manufacturing, Distribution and Retailing (3)

AGEC 598 - Farm Management Strategies: (3)
AGEC 599 - Food and Agribusiness Management Strategies (3)

AGEC 605 - Price Analysis and Forecasting (3)
AGEC 610 - Current Agriculture and Natural Resource Policy Issues (3)

AGEC 615 - Global Agricultural Development (3)
[Effective Fall 2012]
AGEC 623 - International Agricultural Trade (3)
AGEC 632 - Agribusiness Logistics (3)
AGEC 680 - Risk Management (3)
AGEC 710 - Comparative Food and Agriculture
Systems (3)
AGEC 712 - Optimization Techniques for Agricultural Economics (3)

ECON 631 - Principles of Transportation (3)
GENAG 515 - Honors/Scholars Project (2)
Agriculture and Environment (6-7 credit hours)
AGRON 305 - Soils (4)
AGRON 335 - Environmental Quality (3)
FOR 285 - Forest Resource Management (3)
or
FOR 375 - Introduction to Natural Resource
Management (3)
Communication (14 credit hours)
ENGL 100 - Expository Writing I (3)
ENGL 200 - Expository Writing II (3)
COMM 105 - Public Speaking IA (2)
Communication elective: (3)
Select from: English (above 200), Communication studies (above 300) or a modern language

AGCOM 400 - Agricultural Business Communications: (3)
or
ENGL 516 - Written Communication for the Sciences (3)

Economics/Business (12 credit hours)
ECON 110 - Principles of Macroeconomics (3)

AGEC 598 - Farm Management Strategies (3)
AGEC 599 - Food and Agribusiness Management Strategies (3)

AGEC 605 - Price Analysis and Forecasting (3)
AGEC 610 - Current Agriculture and Natural Resource Policy Issues (3)

AGEC 615-Global Agricultural Development (3)
AGEC 623 - International Agricultural Trade (3)
AGEC 632 - Agribusiness Logistics (3)
AGEC 680 - Risk Management (3)
AGEC 710 - Comparative Food and Agriculture Systems (3)

AGEC 712 - Optimization Techniques for Agricultural Economics (3)

ECON 631 - Principles of Transportation (3)
GENAG 515 - Honors/Scholars Project (2)
Agriculture and Environment (6-7 credit hours)
AGRON 305 - Soils (4)
or
AGRON 335 - Environmental Quality (3)
FOR 285 - Forest Resource Management (3)
or
FOR 375 - Introduction to Natural Resource
Management (3)
Communication (14 credit hours)
ENGL 100 - Expository Writing I (3)
ENGL 200 - Expository Writing II (3)
COMM 105 - Public Speaking IA (2)
Communication elective (3)
Select from: English (above 200), Communication studies (above 300) or a modern language
AGCOM 400 - Agricultural Business Communications
(3)
or
ENGL 516 - Written Communication for the Sciences
(3)

Economics/Business (12 credit hours)
ECON 110 - Principles of Macroeconomics (3)

ECON 510 - Intermediate Macroeconomics (3)
ACCTG 231 - Accounting for Business Operations (3)
ACCTG 241 - Accounting for Investing and Financing (3)

Mathematics/Statistics (6-12 credit hours)
MATH 100 - College Algebra (3)
MATH 205 - General Calculus and Linear Algebra (3)
STAT 325 - Introduction to Statistics (3)
өf
STAT 350 - Business and Economic Statistics I (3) and
STAT 351 Business and Economic Statistics II (3)
Natural Sciences (12 credit hours)
BIOL 198 - Principles of Biology (4)
CHM 110 - General Chemistry (3)
and
CHM 111 - General Chemistry Laboratory (1)
PHYS 113 - General Physics I (4)
or
PHYS 101 - The Physical World I (3)
and
PHYS 103 - The Physical World I Laboratory (3)
Social Sciences/Humanities (9 credit hours)
PSYCH 110 - General Psychology (3)
or
SOCIO 211 - Introduction to Sociology (3)
Social Science elective (3)
Select from Psychology, Sociology, Political Science, Anthropology, History, Geography, Women's Studies or American Ethnic Studies or
FSHS 350 - Family Relationships and Gender Roles (3)
Humanities elective (3)
Select from History, Music, Art, English (above 210), Philosophy, Theatre, Dance, Modern Language
or
ARCH 301 - Appreciation of Architecture (3)
Specialty in Natural Resources and Environmental

ECON 510 - Intermediate Macroeconomics (3)
ACCTG 231 - Accounting for Business Operations (3)
ACCTG 241 - Accounting for Investing and Financing (3)

Finance Overlay
AGEC 513 - Agricultural Finance (3)
or
FINAN 450 - Principles of Finance (3)

Mathematics/Statistics ( $\underline{9}$ credit hours)
MATH 100 - College Algebra (3)
MATH 205 - General Calculus and Linear Algebra (3)

STAT 350 - Business and Economic Statistics I (3)

Natural Sciences (12 credit hours)
BIOL 198 - Principles of Biology (4)
CHM 110 - General Chemistry (3)
and
CHM 111 - General Chemistry Laboratory (1)
PHYS 113 - General Physics I (4)
or
PHYS 101 - The Physical World I (3)
and
PHYS 103 - The Physical World I Laboratory (3)
Social Sciences/Humanities (9 credit hours)
PSYCH 110 - General Psychology (3)
or
SOCIO 211 - Introduction to Sociology (3)
Social Science elective (3)
Select from Psychology, Sociology, Political Science, Anthropology, History, Geography, Women's Studies or American Ethnic Studies or
FSHS 350 - Family Relationships and Gender Roles (3)
Humanities elective (3)
Select from History, Music, Art, English (above 210), Philosophy, Theatre, Dance, Modern Language
or
ARCH 301 - Appreciation of Architecture (3)
Specialty in Natural Resources and Environmental

Sciences (15 credit hours)
See Block Elective Requirement at http://www.kstate.edu/nres/require.html\#Block_Elective_Requiremen ts_. Include at least 6 credit hours numbered 500 or above.

Unrestricted electives as needed to meet 127 credit hours
Total credit hours required for graduation (127)

Sciences (15 credit hours)
See Block Elective Requirement at http://www.kstate.edu/nres/require.html\#Block_Elective_Requiremen ts_. Include at least 6 credit hours numbered 500 or above.

Unrestricted electives as needed to meet 127 credit hours
Total credit hours required for graduation (127)

RATIONALE: The curriculum is revised to provide enhanced opportunities for students to acquire strong quantitative reasoning and analytical skills, which are increasingly called for by their employers. To provide foundation for these skills earlier in the curriculum, a new required course in decision tools (AGEC115) replaces the previously required course in computer applications (AGEC490). A new capstone course on data analysis and optimization (AGEC501) is added, and the statistics requirement is changed from STAT325 to STAT350, given the course content. Another change is to enhance consistency across the options while strengthening the overall curriculum by requiring that all students in this degree program take a finance course (AGEC513 or FINAN450).

IMPACT: The Department Head of Statistics (Jim Neill) was contacted; he responded that the department could accommodate by adding an additional section during fall term. We agreed on October 17 to proceed with this understanding and that the Department of Agricultural Economics will advise their students to enroll in STAT 350 as much as possible in the fall. The Department Head of Finance (Eric Higgins) was contacted and responded that the department is fine with the changes.

EFFECTIVE DATE: Fall 2012

## B.S. in Agriculture: Agricultural Economics Major, Specialty Option

## FROM:

TO:
Agricultural Economics (15-credit hours)
AGEC 105 - Agricultural Economics and Agribusiness Orientation (1)

AGEC 120 - Agricultural Economics and Agribusiness (3)

AGEC 315 - Contemporary Issues in Global Food and Agricultural Systems (3)

AGEC 490 - Computer Applications in Agricultural Economics and Agribusiness (2)

AGEC 500 - Production Economics (3)

AGEC 505 - Agricultural Market Structures (3)
Agricultural Economics Electives (21 credit hours)

Agricultural Economics (18 credit hours)
AGEC 105 - Agricultural Economics and Agribusiness Orientation (1)

AGEC 115 - Decision Tools for Agricultural Economics and Agribusiness (2)

AGEC 120 - Agricultural Economics and Agribusiness (3) or
AGEC 121 - Honors Agricultural Economics and Agribusiness (3)

AGEC 315 - Contemporary Issues in Global Food and Agricultural Systems (3)

AGEC 500 - Production Economics (3)
AGEC 501 - Data Analysis and Optimization (3)
AGEC 505 - Agricultural Market Structures (3)
Agricultural Economics Electives (21 credit hours)

Include at least two numbered 598 or above
AGEC 308 - Farm and Ranch Management (3)
AGEC 318 - Food and Agribusiness Management (3)
AGEC 410 - Agricultural Policy (3)
AGEC 415 - The Global Agricultural Economy, Hunger, and Poverty (3) [discontinued Fall 2012]

AGEC 420 - Commodity Futures (3)
AGEC 460 - International Food and Agribusiness Study Tour Credits: (0-6) (Limit 3 credit hours)

AGEC 513 - Agricultural Finance (3)
AGEC 515 - Food and Agribusiness Marketing (3)
AGEC 516 - Agricultural Law and Economics (3)
AGEC 520 - Market Fundamentals and Futures/Options Trading (3)

AGEC 525 - Natural Resource and Environmental Economics (3)

AGEC 570 - Food Manufacturing, Distribution and Retailing (3)

AGEC 598 - Farm Management Strategies (3)
AGEC 599 - Food and Agribusiness Management Strategies (3)

AGEC 605 - Price Analysis and Forecasting (3)
AGEC 610 - Current Agriculture and Natural Resource Policy Issues (3)

AGEC 615 - Global Agricultural Development (3)
[Effective Fall 2012]
AGEC 623 - International Agricultural Trade (3)
AGEC 632 - Agribusiness Logistics (3)
AGEC 680 - Risk Management (3)
AGEC 710 - Comparative Food and Agriculture Systems (3)

AGEC 712 - Optimization Techniques for Agricultural Economics (3)

ECON 631 - Principles of Transportation (3)
GENAG 515 - Honors/Scholars Project (2)
Agricultural and Food Science Technology Restricted

Include at least two numbered 598 or above
AGEC 308 - Farm and Ranch Management (3)
AGEC 318 - Food and Agribusiness Management (3)
AGEC 410 - Agricultural Policy (3)
AGEC 415 - The Global Agricultural Economy, Hunger, and Poverty (3) [discontinued Fall 2012]

AGEC 420 - Commodity Futures (3)
AGEC 460 - International Food and Agribusiness Study Tour Credits: (0-6) (Limit 3 credit hours)

AGEC 513 - Agricultural Finance (3)
AGEC 515 - Food and Agribusiness Marketing (3)
AGEC 516 - Agricultural Law and Economics (3)
AGEC 520 - Market Fundamentals and Futures/Options Trading (3)

AGEC 525 - Natural Resource and Environmental Economics (3)

AGEC 570 - Food Manufacturing, Distribution and Retailing (3)

AGEC 598 - Farm Management Strategies (3)
AGEC 599 - Food and Agribusiness Management Strategies (3)

AGEC 605 - Price Analysis and Forecasting (3)
AGEC 610 - Current Agriculture and Natural Resource Policy Issues (3)

AGEC 615 - Global Agricultural Development (3)
AGEC 623 - International Agricultural Trade (3)
AGEC 632 - Agribusiness Logistics (3)
AGEC 680 - Risk Management (3)
AGEC 710 - Comparative Food and Agriculture Systems (3)

AGEC 712 - Optimization Techniques for Agricultural Economics (3)

ECON 631 - Principles of Transportation (3)
GENAG 515 - Honors/Scholars Project (2)
Agricultural and Food Science Technology Restricted

Electives (6 credit hours)
AGRON 220 - Crop Science (4)
or
HORT 201 - Principles of Horticultural Science (4)
AGRON 305 - Soils (4)
AGRON 330 - Weed Science (3)
ASI 102 - Principles of Animal Science (3)
ASI 105 - Animal Sciences and Industry (1)
ASI 106 - Dairy and Poultry Science (1)
ASI 318 - Fundamentals of Nutrition (3)
ASI 320 - Principles of Feeding (3)
ATM 160 - Engineered Systems and Technology in Agriculture (3)

FDSCI 302 - Introduction to Food Science (3)
FDSCI 305 - Fundamentals of Food Processing (3)
GRSC 101 - Introduction to Grain Science and Industry (3)

See department list for other courses.
Communication (14 credit hours)
ENGL 100 - Expository Writing I (3)
ENGL 200 - Expository Writing II (3)
COMM 105 - Public Speaking IA (2)
Communication elective Credits: (3)
Select from: English (above 200), Communication studies (above 300) or a modern language

AGCOM 400 - Agricultural Business Communications (3)

## or

ENGL 516 - Written Communication for the Sciences (3)

Economics/Business (12 credit hours)
ECON 110 - Principles of Macroeconomics (3)
ECON 510 - Intermediate Macroeconomics (3)
ACCTG 231 - Accounting for Business Operations (3)
ACCTG 241 - Accounting for Investing and Financing (3)

Electives (6 credit hours)
AGRON 220 - Crop Science (4)
or
HORT 201 - Principles of Horticultural Science (4)
AGRON 305 - Soils Credits: (4)
AGRON 330 - Weed Science (3)
ASI 102 - Principles of Animal Science (3)
ASI 105 - Animal Sciences and Industry (1)
ASI 106 - Dairy and Poultry Science (1)
ASI 318 - Fundamentals of Nutrition (3)
ASI 320 - Principles of Feeding (3)
ATM 160 - Engineered Systems and Technology in Agriculture (3)

FDSCI 302 - Introduction to Food Science (3)
FDSCI 305 - Fundamentals of Food Processing (3)
GRSC 101 - Introduction to Grain Science and Industry (3)

See department list for other courses.
Communication (14 credit hours)
ENGL 100 - Expository Writing I (3)
ENGL 200 - Expository Writing II (3)
COMM 105 - Public Speaking IA (2)
Communication elective Credits: (3)
Select from: English (above 200), Communication studies (above 300) or a modern language

AGCOM 400 - Agricultural Business Communications (3)
or
ENGL 516 - Written Communication for the Sciences (3)

Economics/Business (12 credit hours)
ECON 110 - Principles of Macroeconomics (3)
ECON 510 - Intermediate Macroeconomics (3)
ACCTG 231 - Accounting for Business Operations (3)
ACCTG 241 - Accounting for Investing and Financing (3)

Finance Overlay

|  | AGEC 513 - Agricultural Finance (3) or <br> FINAN 450 - Principles of Finance (3) |
| :---: | :---: |
| Mathematics/Statistics (6-12 credit hours) | Mathematics/Statistics ( $\underline{9}$ credit hours) |
| MATH 100 - College Algebra Credits: (3) | MATH 100 - College Algebra (3) |
| MATH 205 - General Calculus and Linear Algebra Credits: (3) | MATH 205 - General Calculus and Linear Algebra (3) |
| STAT 325-Introduction to Statisties Credits: (3) өf |  |
| STAT 350 - Business and Economic Statistics I Credits: (3) | STAT 350 - Business and Economic Statistics I Credits: <br> (3) |
| and STAT 351 - Business and Economic Statistics II Credits: (3) |  |
| Natural Sciences (8 credit hours) | Natural Sciences (8 credit hours) |
| Select a combination of 2 courses for a total of 8 credit hours. | Select a combination of 2 courses for a total of 8 credit hours. |
| CHM 110-General Chemistry (3) and | CHM 110 - General Chemistry (3) and |
| CHM 111 - General Chemistry Laboratory (1) | CHM 111 - General Chemistry Laboratory (1) |
| BIOL 198 - Principles of Biology (4) | BIOL 198 - Principles of Biology (4) |
| PHYS 113 - General Physics I (4) | PHYS 113 - General Physics I (4) |
| Social Sciences/Humanities (9 credit hours) | Social Sciences/Humanities (9 credit hours) |
| PSYCH 110-General Psychology (3) | PSYCH 110 - General Psychology (3) |
| or | or |
| SOCIO 211 - Introduction to Sociology (3) | SOCIO 211 - Introduction to Sociology (3) |
| Social Science elective (3) | Social Science elective (3) |
| Select from Psychology, Sociology, Political | Select from Psychology, Sociology, Political |
| Science, Anthropology, History, Geography, | Science, Anthropology, History, Geography, |
| Women's Studies or American Ethnic Studies or | Women’s Studies or American Ethnic Studies |
| FSHS 350 - Family Relationships and Gender Roles (3) | FSHS 350 - Family Relationships and Gender Roles (3) |
| Humanities elective (3) | Humanities elective (3) |
| Select from History, Music, Art, English (above | Select from History, Music, Art, English (above |
| 210), Philosophy, Theatre, Dance, Modern Language or | 210), Philosophy, Theatre, Dance, Modern Language or |
| ARCH 301 - Appreciation of Architecture (3) | ARCH 301 - Appreciation of Architecture (3) |
| Specialty (15 credit hours) | Specialty (15 credit hours) |
| All hours from the same department/field, minimum 3 hours 300 level or above, and 6 hours 500 level or above. (Minors, Modern Languages, and Accounting are exempt from the course level requirement.) | All hours from the same department/field, minimum 3 hours 300 level or above, and 6 hours 500 level or above. (Minors, Modern Languages, and Accounting are exempt from the course level requirement.) |
| Unrestricted electives as needed to meet 127 credit hours | Unrestricted electives as needed to meet 127 credit hours |

RATIONALE: The curriculum is revised to provide enhanced opportunities for students to acquire strong quantitative reasoning and analytical skills, which are increasingly called for by their employers. To provide foundation for these skills earlier in the curriculum, a new required course in decision tools (AGEC115) replaces the previously required course in computer applications (AGEC490). A new capstone course on data analysis and optimization (AGEC501) is added, and the statistics requirement is changed from STAT325 to STAT350, given the course content. Another change is to enhance consistency across the options while strengthening the overall curriculum by requiring that all students in this degree program take a finance course (AGEC513 or FINAN450).

IMPACT: The Department Head of Statistics (Jim Neill) was contacted; he responded that the department could accommodate by adding an additional section during fall term. We agreed on October 17 to proceed with this understanding and that the Department of Agricultural Economics will advise their students to enroll in STAT 350 as much as possible in the fall. The Department Head of Finance (Eric Higgins) was contacted and responded that the department is fine with the changes.

EFFECTIVE DATE: Fall 2012
B.S. in Agriculture: Agricultural Economics Major

Specialty Option: Pre-Law

FROM:

| Agricultural Economics (24 credit hours) | Agricultural Economics (24 credit hours) |
| :---: | :---: |
| AGEC 105 - Agricultural Economics and AgribusinessOrientation (1) | AGEC 105 - Agricultural Economics and Agribusiness |
|  | Orientation (1) |
|  | AGEC 115 - Decision Tools for Agricultural Economics and Agribusiness (2) |
| AGEC 120 - Agricultural Economics and Agribusiness (3) | AGEC 120 - Agricultural Economics and Agribusiness (3) |
|  | or |
|  | Agribusiness (3) |
| AGEC 315 - Contemporary Issues in Global Food and Agricultural Systems (3) | AGEC 315 - Contemporary Issues in Global Food and Agricultural Systems (3) |
| AGEC 410 - Agricultural Policy (3) | AGEC 410 - Agricultural Policy (3) |
| AGEC 490-Computer Applications in Agriculteral Economics and Agribusiness (2) |  |
| AGEC 500 - Production Economics (3) | AGEC 500 - Production Economics (3) |
|  | AGEC 501 - Data Analysis and Optimization (3) |
| AGEC 505 - Agricultural Market Structures (3) | AGEC 505 - Agricultural Market Structures (3) |
| AGEC 516 - Agricultural Law and Economics (3) | AGEC 516 - Agricultural Law and Economics (3) |

Agricultural Economics Electives (15 credit hours)
Include at least two numbered 598 or above
AGEC 308 - Farm and Ranch Management (3)
AGEC 318 - Food and Agribusiness Management (3)
AGEC 415 - The Global Agricultural Economy, Hunger, and Poverty (3) [discontimed Fall 2012]

AGEC 420 - Commodity Futures (3)
AGEC 460 - International Food and Agribusiness Study Tour Credits: (0-6) (Limit 3 credit hours)

AGEC 513 - Agricultural Finance (3)
AGEC 515 - Food and Agribusiness Marketing (3)
AGEC 520 - Market Fundamentals and Futures/Options Trading (3)

AGEC 525 - Natural Resource and Environmental Economics (3)

AGEC 570 - Food Manufacturing, Distribution and Retailing (3)

AGEC 598 - Farm Management Strategies (3)
AGEC 599 - Food and Agribusiness Management Strategies (3)

AGEC 605 - Price Analysis and Forecasting (3)
AGEC 610 - Current Agriculture and Natural Resource Policy Issues (3)

AGEC 615 - Global Agricultural Development (3)
[Effective Fall 2012]
AGEC 623 - International Agricultural Trade (3)
AGEC 632 - Agribusiness Logistics (3)
AGEC 680 - Risk Management (3)
AGEC 710 - Comparative Food and Agriculture Systems (3)

AGEC 712 - Optimization Techniques for Agricultural Economics (3)

ECON 631 - Principles of Transportation (3)
GENAG 515 - Honors/Scholars Project (2)
Agricultural and Food Science Technology Restricted Electives (6 credit hours)

AGRON 220 - Crop Science (4)

Agricultural Economics Electives (15 credit hours)
Include at least two numbered 598 or above
AGEC 308 - Farm and Ranch Management (3)
AGEC 318 - Food and Agribusiness Management (3)

AGEC 420 - Commodity Futures (3)
AGEC 460 - International Food and Agribusiness Study Tour Credits: (0-6) (Limit 3 credit hours)

AGEC 513 - Agricultural Finance (3)
AGEC 515 - Food and Agribusiness Marketing (3)
AGEC 520 - Market Fundamentals and Futures/Options Trading (3)

AGEC 525 - Natural Resource and Environmental Economics (3)

AGEC 570 - Food Manufacturing, Distribution and Retailing (3)

AGEC 598 - Farm Management Strategies (3)
AGEC 599 - Food and Agribusiness Management Strategies (3)

AGEC 605 - Price Analysis and Forecasting (3)
AGEC 610 - Current Agriculture and Natural Resource Policy Issues (3)

AGEC 615 - Global Agricultural Development (3)
AGEC 623 - International Agricultural Trade (3)
AGEC 632 - Agribusiness Logistics (3)
AGEC 680 - Risk Management (3)
AGEC 710 - Comparative Food and Agriculture Systems (3)

AGEC 712 - Optimization Techniques for Agricultural Economics (3)

ECON 631 - Principles of Transportation (3)
GENAG 515 - Honors/Scholars Project (2)

Agricultural and Food Science Technology Restricted Electives (6 credit hours)

AGRON 220 - Crop Science (4)

| or HORT 201 - Principles of Horticultural Science (4) | or HORT 201 - Principles of Horticultural Science (4) |
| :---: | :---: |
| AGRON 305 - Soils (4) | AGRON 305 - Soils (4) |
| AGRON 330 - Weed Science (3) | AGRON 330 - Weed Science (3) |
| AGRON 501 - Ranch Management (3) | AGRON 501 - Ranch Management (3) |
| ASI 102 - Principles of Animal Science (3) | ASI 102 - Principles of Animal Science (3) |
| ASI 105 - Animal Sciences and Industry (1) | ASI 105 - Animal Sciences and Industry (1) |
| ASI 106 - Dairy and Poultry Science (1) | ASI 106 - Dairy and Poultry Science (1) |
| ASI 318 - Fundamentals of Nutrition (3) | ASI 318 - Fundamentals of Nutrition (3) |
| ASI 320 - Principles of Feeding (3) | ASI 320 - Principles of Feeding (3) |
| ATM 160 - Engineered Systems and Technology in Agriculture (3) | ATM 160 - Engineered Systems and Technology in Agriculture (3) |
| FDSCI 302 - Introduction to Food Science (3) | FDSCI 302 - Introduction to Food Science (3) |
| FDSCI 305 - Fundamentals of Food Processing (3) | FDSCI 305 - Fundamentals of Food Processing: (3) |
| FOR 375 - Introduction to Natural Resource Management (3) | FOR 375 - Introduction to Natural Resource Management (3) |
| GRSC 101 - Introduction to Grain Science and Industry (3) | GRSC 101 - Introduction to Grain Science and Industry (3) |
| See department list for other courses. | See department list for other courses. |
| Communication (14 credit hours) | Communication (14 credit hours) |
| ENGL 100 - Expository Writing I (3) | ENGL 100 - Expository Writing I (3) |
| ENGL 200 - Expository Writing II (3) | ENGL 200 - Expository Writing II (3) |
| COMM 105 - Public Speaking IA (2) | COMM 105 - Public Speaking IA (2) |
| Communication elective (3) | Communication elective (3) |
| Select from: | Select from: |
| COMM 331 - Criticism of Public Discourse (3) | COMM 331 - Criticism of Public Discourse (3) |
| COMM 430 - Freedom of Speech (3) | COMM 430 - Freedom of Speech (3) |
| COMM 435 - Political Communication (3) | COMM 435 - Political Communication (3) |
| COMM 450 - Special Studies in Human Discourse (3) | COMM 450 - Special Studies in Human Discourse (3) |
| COMM 526 - Persuasion (3) | COMM 526 - Persuasion (3) |
| AGCOM 400-Agricultural Business Communications (3) | AGCOM 400-Agricultural Business Communications (3) |
| or | or |
| ENGL 516 - Written Communication for the Sciences (3) | ENGL 516 - Written Communication for the Sciences (3) |
| Economics/Business (12 credit hours) | Economics/Business (12 credit hours) |
| ECON 110 - Principles of Macroeconomics (3) | ECON 110 - Principles of Macroeconomics (3) |
| ECON 510 - Intermediate Macroeconomics (3) | ECON 510 - Intermediate Macroeconomics (3) |

ACCTG 231 - Accounting for Business Operations (3)
ACCTG 241 - Accounting for Investing and Financing (3)

Mathematics/Statistics (6-12 credit hours)
MATH 100 - College Algebra (3)
MATH 205 - General Calculus and Linear Algebra (3)
STAT 325-Introduction to Statistics (3)
өr
STAT 350 - Business and Economic Statistics I (3)
and
STAT 351 - Business and Economic Statistics II (3)

Natural Sciences (8 credit hours)
Select a combination of 2 courses for a total of 8 credit hours.

CHM 110 - General Chemistry Credits: (3)
and
CHM 111 - General Chemistry Laboratory (1)
BIOL 198 - Principles of Biology (4)
PHYS 113 - General Physics I (4)
Social Sciences/Humanities (9 credit hours)
PSYCH 110 - General Psychology (3)
or
SOCIO 211 - Introduction to Sociology (3)
PHIL 110 - Introduction to Formal Logic (3)
or
PHIL 112 - Causal and Statistical Reasoning (3)

POLSC 325 - United States Politics (3)
Specialty in Pre-Law (15-32 credit hours)
With the guidance of your pre-law advisor, select a combination of Specialty courses combined with free electives.

Unrestricted electives as needed to meet 127 credit hours Total credit hours required for graduation (127)

ACCTG 231 - Accounting for Business Operations (3)
ACCTG 241 - Accounting for Investing and Financing (3)

## Finance Overlay

AGEC 513 - Agricultural Finance (3) or
FINAN 450 - Principles of Finance (3)
Mathematics/Statistics ( 9 credit hours)
MATH 100 - College Algebra (3)
MATH 205 - General Calculus and Linear Algebra (3)

STAT 350 - Business and Economic Statistics I (3)

Natural Sciences (8 credit hours)
Select a combination of 2 courses for a total of 8 credit hours.

CHM 110 - General Chemistry (3)
and
CHM 111 - General Chemistry Laboratory (1)
BIOL 198 - Principles of Biology (4)
PHYS 113 - General Physics I (4)
Social Sciences/Humanities (9 credit hours)
PSYCH 110 - General Psychology (3)
or
SOCIO 211 - Introduction to Sociology (3)
PHIL 110 - Introduction to Formal Logic (3)
or
PHIL 112 - Causal and Statistical Reasoning (3)

POLSC 325 - United States Politics (3)
Specialty in Pre-Law (15-32 credit hours)
With the guidance of your pre-law advisor, select a combination of Specialty courses combined with free electives.

Unrestricted electives as needed to meet 127 credit hours
Total credit hours required for graduation (127)

RATIONALE: The curriculum is revised to provide enhanced opportunities for students to acquire strong quantitative reasoning and analytical skills, which are increasingly called for by their employers. To provide foundation for these skills earlier in the curriculum, a new required course in decision tools (AGEC115) replaces the previously required course in computer applications (AGEC490). A new capstone course on data analysis and optimization (AGEC501) is added, and the statistics requirement is changed from STAT325 to STAT350, given the course content. Another change is to enhance consistency across the options while strengthening the overall curriculum by requiring that all students in this degree program take a finance course (AGEC513 or FINAN450).

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## EFFECTIVE DATE: Fall 2012

## B.S. in Agriculture: Agriculture Economics Major Quantitative Option

| Agricultural Economics (15 credit hours) | Agricultural Economics (18 credit hours) |
| :---: | :---: |
| AGEC 105 - Agricultural Economics and Agribusiness | AGEC 105 - Agricultural Economics and Agribusiness |
| Orientation (1) | Orientation (1) |
|  | AGEC 115 - Decision Tools for Agricultural Economics and Agribusiness (2) |
| AGEC 120 - Agricultural Economics and Agribusiness (3) | AGEC 120 - Agricultural Economics and Agribusiness (3) |
|  | $\underline{\text { or }} 121$ ( |
|  | AGEC 121 - Honors Agricultural Economics and |
|  | Agribusiness (3) |
| AGEC 315 - Contemporary Issues in Global Food and | AGEC 315 - Contemporary Issues in Global Food and |
| Agricultural Systems (3) | Agricultural Systems (3) |
| AGEC 490-Computer Applications in Agrieultural Economics and Agribusiness (2) |  |
| AGEC 500 - Production Economics (3) | AGEC 500 - Production Economics (3) |
|  | AGEC 501 - Data Analysis and Optimization (3) |
| AGEC 505 - Agricultural Market Structures (3) | AGEC 505 - Agricultural Market Structures (3) |
| Agricultural Economics Electives (15 credit hours) | Agricultural Economics Electives (15 credit hours) |
| Include at least two numbered 598 and above | Include at least two numbered 598 and above |
| AGEC 308 - Farm and Ranch Management (3) | AGEC 308 - Farm and Ranch Management (3) |
| AGEC 318 - Food and Agribusiness Management (3) | AGEC 318 - Food and Agribusiness Management (3) |
| AGEC 410 - Agricultural Policy (3) | AGEC 410 - Agricultural Policy (3) |
| AGEC 415 - The Global Agricultural Economy, Hunger, and Poverty (3) [discontinued Fall 2012] |  |
| AGEC 420 - Commodity Futures (3) | AGEC 420 - Commodity Futures (3) |

AGEC 460 - International Food and Agribusiness Study Tour (0-6) (Limit 3 credit hours)

AGEC 513 - Agricultural Finance (3)
AGEC 515 - Food and Agribusiness Marketing (3)
AGEC 516 - Agricultural Law and Economics (3)
AGEC 520 - Market Fundamentals and Futures/Options Trading (3)

AGEC 525 - Natural Resource and Environmental Economics Credits: (3)

AGEC 570 - Food Manufacturing, Distribution and Retailing Credits: (3)

AGEC 598 - Farm Management Strategies (3)
AGEC 599 - Food and Agribusiness Management Strategies (3)

AGEC 605 - Price Analysis and Forecasting (3)
AGEC 610 - Current Agriculture and Natural Resource Policy Issues (3)

AGEC 615 - Global Agricultural Development (3)
[Effective Fall 2012]
AGEC 623 - International Agricultural Trade (3)
AGEC 632 - Agribusiness Logistics (3)
AGEC 680 - Risk Management (3)
AGEC 710 - Comparative Food and Agriculture Systems (3)

AGEC 712 - Optimization Techniques for Agricultural Economics (3)

ECON 631 - Principles of Transportation (3)
GENAG 515 - Honors/Scholars Project (2)
Agricultural and Food Science Technology Restricted Electives (6 credit hours)

AGRON 220 - Crop Science (4) or
HORT 201 - Principles of Horticultural Science (4)
AGRON 305 - Soils (4)
AGRON 330 - Weed Science (3)
ASI 102 - Principles of Animal Science (3)
ASI 105 - Animal Sciences and Industry (1)

AGEC 460 - International Food and Agribusiness Study Tour (0-6) (Limit 3 credit hours)

AGEC 513 - Agricultural Finance (3)
AGEC 515 - Food and Agribusiness Marketing (3)
AGEC 516 - Agricultural Law and Economics (3)
AGEC 520 - Market Fundamentals and Futures/Options Trading (3)

AGEC 525 - Natural Resource and Environmental Economics (3)

AGEC 570 - Food Manufacturing, Distribution and Retailing (3)

AGEC 598 - Farm Management Strategies (3)
AGEC 599 - Food and Agribusiness Management Strategies (3)

AGEC 605 - Price Analysis and Forecasting (3)
AGEC 610 - Current Agriculture and Natural Resource Policy Issues (3)

AGEC 615 - Global Agricultural Development (3)
AGEC 623 - International Agricultural Trade (3)
AGEC 632 - Agribusiness Logistics (3)
AGEC 680 - Risk Management (3)
AGEC 710 - Comparative Food and Agriculture Systems (3)

AGEC 712 - Optimization Techniques for Agricultural Economics (3)

ECON 631 - Principles of Transportation (3)
GENAG 515 - Honors/Scholars Project (2)
Agricultural and Food Science Technology Restricted Electives (6 credit hours)

AGRON 220 - Crop Science (4)
or
HORT 201 - Principles of Horticultural Science (4)
AGRON 305 - Soils (4)
AGRON 330 - Weed Science (3)
ASI 102 - Principles of Animal Science (3)
ASI 105 - Animal Sciences and Industry (1)

ASI 106 - Dairy and Poultry Science (1)
ASI 318 - Fundamentals of Nutrition (3)
ASI 320 - Principles of Feeding (3)
ATM 160 - Engineered Systems and Technology in Agriculture (3)

FDSCI 302 - Introduction to Food Science (3)
FDSCI 305 - Fundamentals of Food Processing (3)
GRSC 101 - Introduction to Grain Science and Industry (3)

See department list for other courses.
Communication (14 credit hours)
ENGL 100 - Expository Writing I (3)
ENGL 200 - Expository Writing II (3)
COMM 105 - Public Speaking IA (2)
Communication elective (3)
Select from: English (above 200), Communication studies (above 300) or a modern language

AGCOM 400 - Agricultural Business Communications (3)

## or

ENGL 516 - Written Communication for the Sciences (3)

Economics/Business (12 credit hours)
ECON 110 - Principles of Macroeconomics (3)
ECON 510 - Intermediate Macroeconomics (3)
ACCTG 231 - Accounting for Business Operations (3)
ACCTG 241 - Accounting for Investing and Financing (3)

Mathematics/Statistics (25 credit hours)
CIS 200 - Fundamentals of Software Design (4)
MATH 220 - Analytic Geometry and Calculus I (4)
MATH 221 - Analytic Geometry and Calculus II (4)
MATH 222 - Analytic Geometry and Calculus III (4)

ASI 106 - Dairy and Poultry Science (1)
ASI 318 - Fundamentals of Nutrition (3)
ASI 320 - Principles of Feeding (3)
ATM 160 - Engineered Systems and Technology in Agriculture (3)

FDSCI 302 - Introduction to Food Science (3)
FDSCI 305 - Fundamentals of Food Processing (3)
GRSC 101 - Introduction to Grain Science and Industry (3)

See department list for other courses.
Communication (14 credit hours)
ENGL 100 - Expository Writing I (3)
ENGL 200 - Expository Writing II (3)
COMM 105 - Public Speaking IA (2)
Communication elective (3)
Select from: English (above 200), Communication studies (above 300) or a modern language

AGCOM 400 - Agricultural Business Communications (3)
or
ENGL 516 - Written Communication for the Sciences (3)

Economics/Business (12 credit hours)
ECON 110 - Principles of Macroeconomics (3)
ECON 510 - Intermediate Macroeconomics (3)
ACCTG 231 - Accounting for Business Operations (3)
ACCTG 241 - Accounting for Investing and Financing (3)

## Finance Overlay

AGEC 513 - Agricultural Finance (3)
or
FINAN 450 - Principles of Finance (3)
Mathematics/Statistics (25 credit hours)
CIS 200 - Fundamentals of Software Design (4)
MATH 220 - Analytic Geometry and Calculus I (4)
MATH 221 - Analytic Geometry and Calculus II (4)
MATH 222 - Analytic Geometry and Calculus III (4)

MATH 551 - Applied Matrix Theory (3)

STAT 350 - Business and Economic Statistics I (3)
and
STAT 351 - Business and Economic Statistics II (3) or
STAT 510 - Introductory Probability and Statistics I (3) and
STAT 511- Introductory Probability and Statistics II (3)
Natural Sciences (8 credit hours)
Select a combination of 2 courses for a total of 8 credit hours.

CHM 110-General Chemistry (3) and
CHM 111 - General Chemistry Laboratory (1)
BIOL 198 - Principles of Biology (4)
PHYS 113 - General Physics I (4)
Quantitative Electives (9-credit hours)
AGEC 605 - Price Analysis and Forecasting (3)
AGEC 712 - Optimization Techniques for Agricultural Economics (3)

ECON 630 - Introduction to Econometrics (3)
ECON 735 - Mathematical Economics (3)
MATH 240 - Elementary Differential Equations (4)
MATH 312 - Finite Applications of Mathematics (3)
MATH 540 - Advanced Ordinary Differential Equations (3)

MATH 670 - Mathematical Modeling (3)
MATH 755 - Dynamic Modeling Process (3)
MANGT 421 - Introduction to Operations Management (3)

MANGT 521 - Quantitative Management (3)
IMSE 541 - Statistical Quality Control (3)
IMSE 560 - Introduction to Operations Research I (3)
STAT 410 - Probabilistic Systems Modeling (3)
STAT 704 - Analysis of Variance (2)
STAT 705 - Regression and Correlation Analyses (2)

MATH 551 - Applied Matrix Theory (3)

STAT 350 - Business and Economic Statistics I (3)
and
STAT 351 - Business and Economic Statistics II (3) or
STAT 510 - Introductory Probability and Statistics I (3) and
STAT 511- Introductory Probability and Statistics II (3)
Natural Sciences (8 credit hours)
Select a combination of 2 courses for a total of 8 credit hours.

CHM 110 - General Chemistry (3) and
CHM 111 - General Chemistry Laboratory (1)
BIOL 198 - Principles of Biology (4)
PHYS 113 - General Physics I (4)
Quantitative Electives (6 credit hours)
AGEC 605 - Price Analysis and Forecasting (3)
AGEC 712 - Optimization Techniques for Agricultural Economics (3)

ECON 630 - Introduction to Econometrics (3)
ECON 735 - Mathematical Economics (3)
MATH 240 - Elementary Differential Equations (4)
MATH 312 - Finite Applications of Mathematics (3)
MATH 540 - Advanced Ordinary Differential Equations (3)

MATH 670 - Mathematical Modeling (3)
MATH 755 - Dynamic Modeling Process (3)
MANGT 421 - Introduction to Operations Management (3)

MANGT 521 - Quantitative Management (3)
IMSE 541 - Statistical Quality Control (3)
IMSE 560 - Introduction to Operations Research I (3)
STAT 410 - Probabilistic Systems Modeling (3)
STAT 704 - Analysis of Variance (2)
STAT 705 - Regression and Correlation Analyses (2)

STAT 706 - Basic Elements of Statistical Theory (3)
MKTG 642 - Marketing Research (3)
Social Sciences/Humanities (12 credit hours)
PHIL 130
or
PHIL 135

PSYCH 110 - General Psychology (3)
or
SOCIO 211 - Introduction to Sociology (3)
Social Science elective (3)
Select from Psychology, Sociology, Political
Science, Anthropology, History, Geography,
Women’s Studies or American Ethnic Studies or
FSHS 350 - Family Relationships and Gender Roles (3)
Humanities elective (3)
Select from History, Music, Art, English (above 210), Philosophy, Theatre, Dance, Modern Language or
ARCH 301 - Appreciation of Architecture (3)
Unrestricted electives as needed to meet 127 credit hours
Total credit hours required for graduation (127)

STAT 706 - Basic Elements of Statistical Theory (3)
MKTG 642 - Marketing Research (3)
Social Sciences/Humanities (12 credit hours)
PHIL 130
or
PHIL 135

PSYCH 110 - General Psychology (3)
or
SOCIO 211 - Introduction to Sociology (3)
Social Science elective (3)
Select from Psychology, Sociology, Political
Science, Anthropology, History, Geography,
Women’s Studies or American Ethnic Studies or
FSHS 350 - Family Relationships and Gender Roles (3)
Humanities elective (3)
Select from History, Music, Art, English (above 210), Philosophy, Theatre, Dance, Modern Language or
ARCH 301 - Appreciation of Architecture (3)
Unrestricted electives as needed to meet 127 credit hours
Total credit hours required for graduation (127)

RATIONALE: The curriculum is revised to provide enhanced opportunities for students to acquire strong quantitative reasoning and analytical skills, which are increasingly called for by their employers. To provide foundation for these skills earlier in the curriculum, a new required course in decision tools (AGEC115) replaces the previously required course in computer applications (AGEC490), and a new capstone course on data analysis and optimization (AGEC501) is added. Another change is to enhance consistency across the options while strengthening the overall curriculum by requiring that all students in this degree program take a finance course (AGEC513 or FINAN450).

IMPACT: The Department Head of Finance (Eric Higgins) was contacted and responded that the department is fine with the changes.

EFFECTIVE DATE: Fall 2012
B.S. in Agriculture: Animal Sciences \& Industry Major: Animal Products Option

FROM:
TO:


| FREN, GRM, ITAL, JAPAN, LATIN, PORT, RUSSN, |  |  |  | URDU |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SPAN, URDU |  |  |  | PHILO - Any course |  |  |  |
| PHILO - Any course |  |  |  | POLSC - Any course |  |  |  |
| POLSC - Any course |  |  |  | PSYCH - Any course |  |  |  |
| PSYCH - Any course |  |  |  | SOCIO - Any course |  |  |  |
| SOCIO - Any course |  |  |  | SOCWK - Any course |  |  |  |
| SOCWK - Any course |  |  |  | DANCE - Any course |  |  |  |
| DANCE - Any course |  |  |  | THTRE - Any course |  |  |  |
| THTRE - Any course |  |  |  | WOMST - Any course |  |  |  |
| WOMST - Any course |  |  |  | BUSINESS \& ECONOMICS |  |  |  |
| BUSINESS \& ECONOMICS |  |  |  | ACCTG 231 Accounting Bus Ops |  |  |  |
| ACCTG | 231 | Accounting Bus Ops | 3 | (Select | other | courses, min. 12 hours) |  |
| (Select 4 other courses, min. 12 hours) |  |  |  | AGEC - AGEC 202 to 420, 445 to 799 |  |  |  |
| AGEC - AGEC 202 to 420, 445 to 799 |  |  |  | $\text { ACCTG - ACCTG } 241 \text { to } 799$ |  |  |  |
| ACCTG - ACCTG 241 to 799 |  |  |  | FINAN - Any course |  |  |  |
| FINAN - Any course |  |  |  | FSHS - FSHS 105 |  |  |  |
| FSHS - FSHS 105 |  |  |  | MANGT - Any course |  |  |  |
| MANGT - Any course |  |  |  | MKTG - Any course |  |  |  |
| MKTG - Any course |  |  |  | MATH/STATISTICS/COMPUTERS <br> (Select 1) |  |  |  |
|  |  | (Select 1) |  | STAT | 325 | Intro Statistics | 3 |
| STAT | 325 | Intro Statistics | 3 | STAT | 340 | Biometrics I | 3 |
| STAT | 340 | Biometrics I | 3 | STAT | 350 | Business Econ Statistics | 3 |
| STAT | 350 | Business Econ Statistics (Minimum 3 hours) | 3 | (Minimum 3 hours) |  |  |  |
| ASI - ASI 490 |  |  |  | CIS - CIS 101 to 104 |  |  |  |
| CIS - CIS 101 to 104 |  |  |  | MATH - MATH 150, 205, 210, 211, 220, 221, 222 |  |  |  |
| MATH - MATH 150, 205, 210, 211, 220, 221, 222 |  |  |  | STAT - STAT 341, 351 |  |  |  |
| STAT - STAT 341, 351 |  |  |  | COMMUNICATIONS |  |  |  |
| COMMUNICATIONS |  |  |  |  |  |  |  |
|  |  | (Minimum 3 hours) |  | $\text { AGCOM - AGCOM 310, 400, 410, } 590 \text { \& } 610$ |  |  |  |
| AGCOM - AGCOM 310, 400, 410, 590 \& 610 |  |  |  | COMM - COMM 311, 321, 322, 326 |  |  |  |
| COMM - COMM 311, 321, 322, 326 |  |  |  | ENGL - ENGL 300, 516 |  |  |  |
| ENGL - ENGL 300, 516 |  |  |  | GENAG - GENAG 450 |  |  |  |
| GENAG - GENAG 450 |  |  |  | MC - MC 110, 111, 112, 120, \& 180 |  |  |  |
| MC - MC 110, 111, 112, 120, \& 180 |  |  |  | ANIMAL \& FOOD SCIENCE |  |  |  |
| ANIMAL \& FOOD SCIENCE |  |  |  | ASI | 102 | Prin Animal Science | 3 |
| ASI | 102 | Prin Animal Science | 3 | ASI | 105 | Animal Sciences \& Ind | 1 |
| ASI | 105 | Animal Sciences \& Ind | 1 | ASI | 106 | Dairy/Poultry Lab | 1 |
| ASI | 106 | Dairy/Poultry Lab | 1 | ASI | 318 | Fund. of Nutrition | 3 |
| ASI | 318 | Fund. of Nutrition | 3 | ASI | 580 | ASI Seminar | 1 |
| ASI | 580 | ASI Seminar | 1 | FDSCI | 302 | Intro Food Science | 3 |
| FDSCI | 302 | Intro Food Science | 3 | FDSCI | 690 | Principles of HACCP | 2 |
| FDSCI | 690 | Principles of HACCP | 2 | FDSCI | 607 | Food Microbiology | 4 |
| FDSCI | 607 | Food Microbiology | 4 | FDSCI | 695 | QA of Food Products | 3 |
| FDSCI | 695 | QA of Food Products | 3 |  |  | (Select 1 course) |  |
|  |  | (Select 1 course) |  | ASI | 350 | Meat Science | 3 |
| ASI | 350 | Meat Science | 3 | ASI | 405 | Fund Milk Processing | 3 |
| ASI | 405 | Fund Milk Processing | 3 |  |  | (Select 1 course) |  |
|  |  | (Select 1 course) |  | ASI | 515 | Beef Science | 3 |
| ASI | 515 | Beef Science | 3 | ASI | 524 | Sheep/Meat Goat Science | 3 |
| ASI | 524 | Sheep/Meat Goat Science | 3 | ASI | 535 | Swine Science | 3 |
| ASI | 535 | Swine Science | 3 | ASI | 621 | Dairy Cattle Management | 3 |
| ASI | 621 | Dairy Cattle Management | 3 | ASI | 645 | Poultry Management | 3 |
| ASI | 645 | Poultry Management | 3 |  |  | (Select 18 hours) |  |
|  |  | (Select 18 hours) |  | ASI | 315 | Livestock \& Meat Eval | 3 |
| ASI | 315 | Livestock \& Meat Eval | 3 | ASI | 361 | Meat Animal Processing | 2 |
| ASI | 361 | Meat Animal Processing | 2 | ASI | 370 | Prin. Meat Evaluation | 2 |
| ASI | 370 | Prin. Meat Evaluation | 2 | ASI | 495 | Adv. Meat Evaluation | 2 |
| ASI | 495 | Adv. Meat Evaluation | 2 | ASI | 500 | Genetics | 3 |
| ASI | 500 | Genetics | 3 | ASI | 510 | Animal Breeding | 3 |
| ASI | 510 | Animal Breeding | 3 | ASI | 533 | Anatomy \& Physiology | 4 |


| ASI | 533 | Anatomy \& Physiology | 4 | ASI | 608 | Dairy Food Processing Tech | 3 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ASI | 608 | Dairy Food Processing Tech | 3 | ASI | 610 | Processed Meat Ops | 2 |
| ASI | 610 | Processed Meat Ops | 2 | ASI | 640 | Poultry Product Tech | 3 |
| ASI | 640 | Poultry Product Tech | 3 | ASI | 650 | I.D. Data Mngt Food Animal | 2 |
| ASI | 650 | I.D. Data Mngt Food Animal | 2 | ASI | 655 | Behavior Domestic Animals | 3 |
| ASI | 655 | Behavior Domestic Animals | 3 | ASI | 658 | Animal Growth \& Developme |  |
|  |  |  |  | ASI | 777 | Meat Technology | 3 |
| ASI | 777 | Meat Technology | 3 | FDSCI | 305 | Fund Food Processing | 3 |
| FDSCI | 305 | Fund Food Processing | 3 | FDSCI | 430 | Food Product Eval | 3 |
| FDSCI | 430 | Food Product Eval | 3 | FDSCI | 603 | Food Science Internship | 1-3 |
| FDSCI | 603 | Food Science Internship | 1-3 |  |  |  |  |

RATIONALE: We are adding 2 ASI classes to our restricted ASI course list under "minimum 9 hours". ASI 658 was not included in our original list as we did not have a faculty member to teach the course, we have since hired a faculty member to cover the course and now would like to add it into our curriculum. ASI 608 should have been included in the ASI restricted electives list on all of our options, but was inadvertently left off when we revised our 2011 curriculum.

IMPACT: No impact on other departments.

EFFECTIVE DATE: Fall 2012
B.S. in Agriculture: Animal Sciences \& Industry Major:

Bioscience/Biotechnology Option
FROM: TO:



| SPAN, URDU |  |  |  | URDU |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | ANIMAL SCIENCE |  |  |  | ANIMAL SCIENCE |  |
| ASI | 102 | Prin Animal Science | 3 | ASI | 102 | Prin Animal Science | 3 |
| ASI | 105 | Animal Sciences \& Ind | 1 | ASI | 105 | Animal Sciences \& Ind | 1 |
| ASI | 106 | Dairy/Poultry Lab |  | ASI | 106 | Dairy/Poultry Lab | 1 |
| ASI | 107 | Comp Anml/Horse Lab | 1 | ASI | 107 | Comp Anml/Horse Lab | 1 |
| ASI | 318 | Fund. of Nutrition | 3 | ASI | 318 | Fund. of Nutrition | 3 |
| ASI | 400 | Farm Animal Reproduction | 4 | ASI | 400 | Farm Animal Reproduction | 4 |
| ASI | 500 | Genetics | 3 | ASI | 500 | Genetics | 3 |
| ASI | 520 | Companion/Lab Animal Mngt | 3 | ASI | 520 | Companion/Lab Animal Mngt | 3 |
| ASI | 533 | Anatomy \& Physiology | 4 | ASI | 533 | Anatomy \& Physiology | 4 |
| ASI | 580 | ASI Seminar (Select 2 courses) | 1 | ASI | 580 | ASI Seminar (Select 2 courses) | 1 |
| ASI | 315 | Livestock \& Meat Eval | 3 | ASI | 315 | Livestock \& Meat Eval | 3 |
| ASI | 320 | Principles of Feeding | 3 | ASI | 320 | Principles of Feeding | 3 |
| ASI | 350 | Meat Science | 3 | ASI | 350 | Meat Science | 3 |
| ASI | 361 | Meat Animal Processing | 2 | ASI | 361 | Meat Animal Processing | 2 |
| ASI | 405 | Fund Milk Processing | 3 | ASI | 405 | Fund Milk Processing | 3 |
| ASI | 510 | Animal Breeding Principles | 3 | ASI | 510 | Animal Breeding Principles | 3 |
| ASI | 540 | Principles of Animal Disease | 3 | ASI | 540 | Principles of Animal Disease | 3 |
| ASI | 595 | Contemp Issues Anml Ag |  | ASI | 595 | Contemp Issues Anml Ag |  |
| ASI | 601 | Physiology of Lactation | 3 | ASI | 601 | Physiology of Lactation | 3 |
| ASI | 640 | Poultry Product Tech | 3 | ASI | 608 | Dairy Foods Processing \& Tec | nol (3) |
| ASI | 655 | Behavior Domestic Animals | 3 | ASI | 640 | Poultry Product Tech | 3 |
| ASI | 695 | Equine Exercise Physiology | 3 | ASI | 655 | Behavior Domestic Animals | 3 |
| FDSCI | 607 | Food Microbiology <br> (Select 1 course) | 4 | ASI <br> FDSCI | $\begin{aligned} & 695 \\ & 607 \end{aligned}$ | Equine Exercise Physiology <br> Food Microbiology | $\begin{aligned} & 3 \\ & 4 \end{aligned}$ |
| ASI | 515 | Beef Science | 3 |  |  | (Select 1 course) |  |
| ASI | 521 | Horse Science | 3 | ASI | 515 | Beef Science | 3 |
| ASI | 524 | Sheep/Meat Goat Science | 3 | ASI | 521 | Horse Science | 3 |
| ASI | 535 | Swine Science | 3 | ASI | 524 | Sheep/Meat Goat Science | 3 |
| ASI | 621 | Dairy Cattle Management | 3 | ASI | 535 | Swine Science | 3 |
| ASI | 645 | Poultry Management | 3 | ASI | 621 | Dairy Cattle Management | 3 |
|  |  |  |  | ASI | 645 | Poultry Management | 3 |

RATIONALE:

IMPACT:

We are adding 2 ASI classes to our restricted ASI course list under "minimum 9 hours". ASI 658 was not included in our original list as we did not have a faculty member to teach the course, we have since hired a faculty member to cover the course and now would like to add it into our curriculum. ASI 608 should have been included in the ASI restricted electives list on all of our options, but was inadvertently left off when we revised our 2011 curriculum.

No impact on other departments.
B.S. in Agriculture: Animal Sciences \& Industry Major:

Business Option
FROM:
TO:


| FREN, GRM, ITAL, JAPAN, LATIN, PORT, RUSSN, |  |  |  | FREN, GRM, ITAL, JAPAN, LATIN, PORT, RUSSN, SPAN, URDU |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| PHILO - Any course |  |  |  | PHILO - Any course |  |  |  |
| POLSC - Any course |  |  |  | POLSC - Any course |  |  |  |
| PSYCH - Any course |  |  |  | PSYCH - Any course |  |  |  |
| SOCIO - Any course |  |  |  | SOCIO - Any course |  |  |  |
| SOCWK - Any course |  |  |  | SOCWK - Any course |  |  |  |
| DANCE - Any course |  |  |  | DANCE - Any course |  |  |  |
| THTRE - Any course |  |  |  | THTRE - Any course |  |  |  |
| WOMST - Any course |  |  |  | WOMST - Any course |  |  |  |
| BUSINESS \& ECONOMICS |  |  |  | BUSINESS \& ECONOMICS |  |  |  |
| ACCTG | 231 | Acctg for Bus Ops | 3 | ACCTG | 231 | Acctg for Bus Ops | 3 |
| ACCTG | $241$ | Acctg for Inv \& Fin us 6 courses, min. 18 hours) | 3 | ACCTG |  | Acctg for Inv \& Fin 6 courses, min. 18 hours) | 3 |
| AGEC - AGEC 202 to 420, 445 to 799 |  |  |  | AGEC - AGEC 202 to 420, 445 to 799 |  |  |  |
| ACCTG - ACCTG 331 to 799 |  |  |  | ACCTG - ACCTG 331 to 799 |  |  |  |
| ECON - ECON 500 to 799 |  |  |  | ECON - ECON 500 to 799 |  |  |  |
| FINAN - Any course |  |  |  | FINAN - Any course |  |  |  |
| FSHS - FSHS 105 |  |  |  | FSHS - FSHS 105 |  |  |  |
| MANGT - Any course |  |  |  | MANGT - Any course |  |  |  |
| MKTG - Any course |  |  |  | MKTG - Any cour |  |  |  |
| MATH/STATISTICS/COMPUTERS |  |  |  | MATH/STATISTICS/COMPUTERS <br> (Minimum 3 hours) |  |  |  |
| ASI - ASI 490 |  |  |  | ASI - ASI 490 |  |  |  |
| CIS - CIS 101, 102, 103, 104 |  |  |  | CIS - CIS 101, 102, 103, 104 |  |  |  |
| MATH - MATH 150, 205, 210, 211, 220, 221, 222 |  |  |  | MATH - MATH 150, 205, 210, 211, 220, 221, 222 |  |  |  |
| STAT - STAT 320, 325, 330, 340, 350 |  |  |  | STAT - STAT 320, 325, 330, 340, 350 |  |  |  |
| COMMUNICATIONS(Minimum 3 hours) |  |  |  | COMMUNICATIONS(Minimum 3 hours) |  |  |  |
|  |  |  |  |  |  |  |  |
| AGCOM - AGCOM 310, 400, 410, 590, 610, 712 |  |  |  | AGCOM - AGCOM 310, 400, 410, 590, 610, 712 |  |  |  |
| COMM - COMM 311, 321, 322, 326 |  |  |  | COMM - COMM 311, 321, 322, 326 |  |  |  |
| ENGL - ENGL 300, 516 |  |  |  | ENGL - ENGL 300, 516 |  |  |  |
| GENAG - 450 |  |  |  | GENAG - 450 |  |  |  |
| MC - MC 110, 111, 112, 120, 180 |  |  |  | MC - MC 110, 111, 112, 120, 180 |  |  |  |
| Modern Language - Any course in ARAB, CHINE, FREN, GRM, ITAL, JAPAN, LATIN, PORT, RUSSN, SPAN, URDU |  |  |  | Modern Language - Any course in ARAB, CHINE, FREN, GRM, ITAL, JAPAN, LATIN, PORT, RUSSN, SPAN, URDU |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  | ANIMAL SCIENCE |  |  |  | ANIMAL SCIENCE |  |
| ASI | 102 | Principles of Animal Science | 3 | ASI | 102 | Principles of Animal Science | 3 |
| ASI | 318 | Fund. of Nutrition | 3 | ASI | 318 | Fund. of Nutrition | 3 |
| ASI | 320 | Principles of Feeding | 3 | ASI | 320 | Principles of Feeding | 3 |
| ASI | 400 | Farm Animal Reproduction | 4 | ASI | 400 | Farm Animal Reproduction | 4 |
| ASI | 580 | ASI Seminar | 1 | ASI | 580 | ASI Seminar | 1 |
|  |  | (Select 2 courses) |  |  |  | (Select 2 courses) |  |
| ASI | 105 | Animal Sciences \& Ind | 1 | ASI | 105 | Animal Sciences \& Ind | 1 |
| ASI | 106 | Dairy/Poultry Lab | 1 | ASI | 106 | Dairy/Poultry Lab | 1 |
| ASI | 107 | Companion Anml/Horse Lab | 1 | ASI | 107 | Companion Anml/Horse Lab | 1 |
|  |  | (Select 1 course) |  |  |  | (Select 1 course) |  |
| ASI | 350 | Meat Science | 3 | ASI | 350 | Meat Science | 3 |
| ASI | 361 | Meat Animal Processing | 2 | ASI | 361 | Meat Animal Processing | 2 |
| ASI | 405 | Fund Milk Processing | 3 | ASI | 405 | Fund Milk Processing | 3 |
| ASI | 640 | Poultry Product Tech | 3 | ASI | 640 | Poultry Product Tech | 3 |
| FDSCI | 305 | Fund of Food Processing (Select 2 courses) | 3 | FDSCI | 305 | Fund of Food Processing (Select 2 courses) | 3 |
| ASI | 515 | Beef Science | 3 | ASI | 515 | Beef Science | 3 |
| ASI | 520 | Companion/Lab Anml Mngt | 3 | ASI | 520 | Companion/Lab Anml Mngt | 3 |
| ASI | 521 | Horse Science | 3 | ASI | 521 | Horse Science | 3 |
| ASI | 524 | Sheep/Meat Goat Science | 3 | ASI | 524 | Sheep/Meat Goat Science | 3 |
| ASI | 535 | Swine Science | 3 | ASI | 535 | Swine Science | 3 |
| ASI | 621 | Dairy Cattle Management | 3 | ASI | 621 | Dairy Cattle Management | 3 |


| ASI | 645 | Poultry Management <br> (Minimum 9 hours) | 3 | ASI | 645 | Poultry Management <br> (Minimum 9 hours) | 3 |
| :--- | ---: | :--- | :--- | :--- | :--- | :--- | :--- |
| ASI | 315 | Livestock \& Meat Eval | 3 | ASI | 315 | Livestock \& Meat Eval | 3 |
| ASI | 504 | Equine Repro Mngt | 3 | ASI | 504 | Equine Repro Mngt | 3 |
| ASI | 510 | Animal Breeding Pr. | 3 | ASI | 510 | Animal Breeding Pr. | 3 |
| ASI | 512 | Bovine Repro Tech | 2 | ASI | 512 | Bovine Repro Tech | 2 |
| ASI | 540 | Principles of Animal Disease | 3 | ASI | 540 | Principles of Animal Disease | 3 |
| ASI | 595 | Contemp Issues ASI | 3 | ASI | 595 | Contemp Issues ASI | 3 |
| ASI | 600 | Applied Animal Biotech | 2 | ASI | 600 | Applied Animal Biotech | 2 |
| ASI | 601 | Physiology of Lactation | 3 | ASI | 601 | Physiology of Lactation | 3 |
| ASI | 602 | Equine Breeding/Genetics | 2 | ASI | 602 | Equine Breeding/Genetics | 2 |
| ASI | 610 | Processed Meat Ops | 2 | ASI | 608 | Dairy Foods Process \& Technol 3 |  |
| ASI | 620 | Lvstk Prod \& Mngmt | 2 | ASI | 610 | Processed Meat Ops | 2 |
| ASI | 650 | Id Data Management | 2 | ASI | 620 | Lvstk Prod \& Mngmt | 2 |
| ASI | 655 | Behavior Domst Anml | 3 | ASI | 650 | Id Data Management | 2 |
| ASI | $675-679$ | Non-Ruminant Modules | $1-4$ | ASI | 655 | Behavior Domst Anml | 3 |
| ASI | $680-685$ | Ruminant Modules | $1-6$ | ASI | 658 | Animal Growth \& Development3 |  |
| ASI | 695 | Equine Exercise Physiol | 3 | ASI | $675-679$ | Non-Ruminant Modules | $1-4$ |
| ASI | 710 | Phys Repro Farm Anml | 3 | ASI | $680-685$ | Ruminant Modules | $1-6$ |
| ASI | 777 | Meat Technology | 3 | ASI | 695 | Equine Exercise Physiol | 3 |
|  |  |  | ASI | 710 | Phys Repro Farm Anml | 3 |  |
|  |  |  | ASI | 777 | Meat Technology | 3 |  |

RATIONALE:

IMPACT:

We are adding 2 ASI classes to our restricted ASI course list under "minimum 9 hours". ASI 658 was not included in our original list as we did not have a faculty member to teach the course, we have since hired a faculty member to cover the course and now would like to add it into our curriculum. ASI 608 should have been included in the ASI restricted electives list on all of our options, but was inadvertently left off when we revised our 2011 curriculum.

No impact on other departments.

EFFECTIVE DATE: Fall 2012
B.S. in Agriculture: Animal Sciences \& Industry Major:

Communications Option

FROM:

|  | GENERAL COURSES |  |  |  |
| :--- | :--- | :--- | :--- | :---: |
| GENAG | 101 | Ag Orientation -OR- | 1 |  |
| GENAG | 200 | College Careers | 0 |  |
| CHM | 110 | General Chemistry | 3 |  |
| CHM | 111 | General Chemistry Lab | 1 |  |
| BIOL | 198 | Principles of Biology | 4 |  |
| ECON | 110 | Prin Macro Economics | 3 |  |
| ENGL | 100 | Expository Writing I | 3 |  |
| ENGL | 200 | Expository Writing II | 3 |  |
| MATH | 100 | College Algebra | 3 |  |
| COMM | 105 | Public Speaking IA | 2 |  |
| AGRICULTURE |  |  |  |  |
| (Select 4 courses-2 other AG Depts. min. 11 hours) |  |  |  |  |

(1 hour courses cannot be applied, cannot use courses from AGCOM)
ASI - ASI 660
ATM - ATM 160 to 329, 571, 572 to 661
AGEC - AGEC 120 to 420, 460,500 to 525, 590 to 632, 712
AGRON - 220, 305, 330 to 385, 430, 501, 550, 630 to 660,681 to 790
FDSCI - FDSCI 302, 305, 660, 690
ENTOM - ENTOM 250 or 301, 300, 305, 312, 314 to 620, 692 to 767
GRSC - GRSC 100 to $120,150,305$ to 510,602 to 661,710 to 737, 750 to 785
HORT - HORT 201 to 525, 535 to 625, 706 to 751
FOR - FOR 210 to 311, 330 to 375, 510, 520, 643
RRES - RRES 210 to 490, 521 to 705
PLPTH - PLPTH 500 to 745
GENAG - GENAG 450, 505

## HUMANITIES/SOCIAL SCIENCE

(Minimum 9 hours)
(Must be taken from more than one department)
(Maximum 3 hours in performance courses)
AMETH - AMETH 160 to 501
ANTH - Any course
ARCH - ARCH 301
ART - Any course
DANCE - DANCE 120 to 200, 225 to 420, 495 to 690
DEN - DEN 325, 450
ECON - ECON 120-799
ENGL - ENGL 150, 210 to 299, 310, 320 to 399, 420 to 499,
536 to 599,605 to 660,670 to 695,700 to 760,790 to 799
ENVD - ENVD 250, 251,
GEOG - GEOG 100, 200, 201, 300 to 799
HIST - Any course
FSHS - Any course
MUSIC - Any course
Modern Language - Any course in ARAB, CHINE, FREN,
GRM, ITAL, JAPAN, LATIN, PORT, RUSSN, SPAN, URDU
PHILO - Any course
POLSC - Any course
PSYCH - Any course
SOCIO - Any course
SOCWK - Any course
DANCE - Any course
THTRE - Any course
WOMST - Any course
BUSINESS \& ECONOMICS
ACCTG 231 Acctg for Bus Ops

|  | GENERAL COURSES |  |  |
| :--- | :--- | :--- | :--- |
| GENAG | 101 | Ag Orientation -OR- | 1 |
| GENAG | 200 | College Careers | 0 |
| CHM | 110 | General Chemistry | 3 |
| CHM | 111 | General Chemistry Lab | 1 |
| BIOL | 198 | Principles of Biology | 4 |
| ECON | 110 | Prin Macro Economics | 3 |
| ENGL | 100 | Expository Writing I | 3 |
| ENGL | 200 | Expository Writing II | 3 |
| MATH | 100 | College Algebra | 3 |
| COMM | 105 | Public Speaking IA | 2 |
|  |  | AGRICULTURE |  |

(Select $\mathbf{4}$ courses - 2 other AG Depts. min. 11 hours)
(1 hour courses cannot be applied, cannot use courses from AGCOM)
ASI - ASI 660
ATM - ATM 160 to 329, 571, 572 to 661
AGEC - AGEC 120 to 420, 460,500 to 525, 590 to 632, 712
AGRON - 220, 305, 330 to $385,430,501,550,630$ to 660,681 to 790
FDSCI - FDSCI 302, 305, 660, 690
ENTOM - ENTOM 250 or $301,300,305,312,314$ to 620,692 to 767
GRSC - GRSC 100 to $120,150,305$ to 510,602 to 661,710 to
737, 750 to 785
HORT - HORT 201 to 525, 535 to 625, 706 to 751
FOR - FOR 210 to 311, 330 to 375, 510, 520, 643
RRES - RRES 210 to 490, 521 to 705
PLPTH - PLPTH 500 to 745
GENAG - GENAG 450, 505

## HUMANITIES/SOCIAL SCIENCE

(Minimum 9 hours)
(Must be taken from more than one department)
(Maximum 3 hours in performance courses)
AMETH - AMETH 160 to 501
ANTH - Any course
ARCH - ARCH 301
ART - Any course
DANCE - DANCE 120 to 200, 225 to 420, 495 to 690
DEN - DEN 325, 450
ECON - ECON 120-799
ENGL - ENGL 150, 210 to 299, 310, 320 to 399, 420 to 499, 536
to 599, 605 to 660, 670 to 695, 700 to 760, 790 to 799
ENVD - ENVD 250, 251,
GEOG - GEOG 100, 200, 201, 300 to 799
HIST - Any course
FSHS - Any course
MUSIC - Any course
Modern Language - Any course in ARAB, CHINE, FREN, GRM, ITAL, JAPAN, LATIN, PORT, RUSSN, SPAN, URDU
PHILO - Any course
POLSC - Any course
PSYCH - Any course
SOCIO - Any course
SOCWK - Any course
DANCE - Any course
THTRE - Any course
WOMST - Any course
BUSINESS \& ECONOMICS
ACCTG 231 Acctg for Bus Ops

| (plus 1 course, minimum 3 hours)AGEC - AGEC 202 to 420,445 to 799ACCTG - ACCTG 241 to 799FINAN - Any courseFSHS - FSHS 105MANGT - Any courseMKTG - Any courseMATH/STATISTICS/COMPUTERS(Minimum 3 hours) |  |  |  | (plus 1 course, minimum 3 hours) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | AGEC - AGEC 202 to 420, 445 to 799 |  |  |  |
|  |  |  | ACCTG - ACCTG 241 to 799 | ACCTG - ACCTG 241 to 799 |  |  |  |
|  |  |  |  | FINAN - Any course |  |  |  |
|  |  |  |  | FSHS - FSHS 105 |  |  |  |
|  |  |  |  | MANGT - Any course |  |  |  |
|  |  |  |  | MKTG - Any course |  |  |  |
|  |  |  |  | MATH/STATISTICS/COMPUTERS <br> (Minimum 3 hours) |  |  |  |
| ASI - ASI 490 |  |  |  | ASI - ASI 490 |  |  |  |
| CIS - CIS 101, 102, 103, 104 |  |  |  | CIS - CIS 101, 102, 103, 104 |  |  |  |
| MATH - MATH 150, 205, 210, 211, 220, 221, 222 |  |  |  | MATH - MATH 150, 205, 210, 211, 220, 221, 222 |  |  |  |
| STAT - STAT 320, 325, 330, 340, 350 |  |  |  | STAT - STAT 320, 325, 330, 340, 350 |  |  |  |
|  |  | COMMUNICATIONS |  |  |  | COMMUNICATIONS |  |
| MC | 110 | Mass Comm in Society | 3 | MC | 110 | Mass Comm in Society | 3 |
| MC | 200 | News \& Feature Writing | 3 | MC | 200 | News \& Feature Writing | 3 |
| MC | 241 | Editing | 3 | MC | 241 | Editing | 3 |
| MC | 303 | Adv News \& Feature Writing | 3 | MC | 303 | Adv News \& Feature Writing | 3 |
| MC | 341 | News Design | 3 | MC | 341 | News Design | 3 |
| MC | 466 | Law of Mass Communications (Select 1) | 3 | MC | 466 | Law of Mass Communications (Select 1) | 3 |
| MC | 111 | Journalism in a Free Society | 3 | MC | 111 | Journalism in a Free Society | 3 |
| MC | 112 | Web Comm in Society | 3 | MC | 112 | Web Comm in Society | 3 |
| MC | 120 | Principles of Advertising | 3 | MC | 120 | Principles of Advertising | 3 |
| MC |  | Fund of Public Relations (Minimum 3 hours) | 3 | MC |  | Fund of Public Relations (Minimum 3 hours) | 3 |
| MC - MC 400 to 799 |  |  |  | MC - MC 400 to 799 |  |  |  |
|  |  | (Minimum 3 hours) |  |  |  | (Minimum 3 hours) |  |
| AGCOM - Any Course |  |  |  | AGCOM - Any Course |  |  |  |
| COMM - Any Course |  |  |  | COMM - Any Course |  |  |  |
| MC - Any Course |  |  |  | MC - Any Course |  |  |  |
|  |  | ANIMAL SCIENCE |  |  |  | ANIMAL SCIENCE |  |
| ASI | 102 | Principles of Animal Science | 3 | ASI | 102 | Principles of Animal Science | 3 |
| ASI | 318 | Fundamentals of Nutrition | 3 | ASI | 318 | Fundamentals of Nutrition | 3 |
| ASI | 400 | Farm Animal Reproduction | 4 | ASI | 400 | Farm Animal Reproduction | 4 |
| ASI | 500 | Genetics | 3 | ASI | 500 | Genetics | 3 |
| ASI | 533 | Anatomy \& Physiology | 4 | ASI | 533 | Anatomy \& Physiology | 4 |
| ASI | 580 | ASI Seminar (Select 1 course) | 1 | ASI | 580 | ASI Seminar (Select 1 course) | 1 |
| ASI | 105 | Animal Sciences \& Ind Lab | 1 | ASI | 105 | Animal Sciences \& Ind Lab | 1 |
| ASI | 106 | Dairy/Poultry Lab | 1 | ASI | 106 | Dairy/Poultry Lab | 1 |
| ASI | 107 | Companion Anml/Horse Lab (Select 1 course) | 1 | ASI | 107 | Companion Anml/Horse Lab (Select 1 course) | 1 |
| ASI | 350 | Meat Science | 3 | ASI | 350 | Meat Science | 3 |
| ASI | 361 | Meat Animal Processing | 2 | ASI | 361 | Meat Animal Processing | 2 |
| ASI | 405 | Fund Milk Processing | 3 | ASI | 405 | Fund Milk Processing | 3 |
| ASI | 640 | Poultry Product Tech | 3 | ASI | 640 | Poultry Product Tech | 3 |
| FDSCI | 305 | Fund of Food Processing (Select 2 courses) | 3 | FDSCI | 305 | Fund of Food Processing (Select 2 courses) | 3 |
| ASI | 515 | Beef Science | 3 | ASI | 515 | Beef Science | 3 |
| ASI | 520 | Companion/Lab Anml Mngt | 3 | ASI | 520 | Companion/Lab Anml Mngt | 3 |
| ASI | 521 | Horse Science | 3 | ASI | 521 | Horse Science | 3 |
| ASI | 524 | Sheep/Meat Goat Science | 3 | ASI | 524 | Sheep/Meat Goat Science | 3 |
| ASI | 535 | Swine Science | 3 | ASI | 535 | Swine Science | 3 |
| ASI | 621 | Dairy Cattle Management | 3 | ASI | 621 | Dairy Cattle Management | 3 |
| ASI | 645 | Poultry Management (Minimum 9 hours) | 3 | ASI | 645 | Poultry Management (Minimum 9 hours) | 3 |
| ASI | 315 | Livestock \& Meat Eval | 3 | ASI | 315 | Livestock \& Meat Eval | 3 |
| ASI | 320 | Principles of Feeding | 3 | ASI | 320 | Principles of Feeding | 3 |
| ASI | 504 | Equine Reproductive Mngt | 3 | ASI | 504 | Equine Reproductive Mngt | 3 |
| ASI | 510 | Animal Breeding Principles | 3 | ASI | 510 | Animal Breeding Principles | 3 |
| ASI | 512 | Bovine Reproductive Tech | 2 | ASI | 512 | Bovine Reproductive Tech | 2 |
| ASI | 540 | Principles of Animal Disease | 3 | ASI | 540 | Principles of Animal Disease | 3 |
| ASI | 595 | Contemporary Issues in ASI | 3 | ASI | 595 | Contemporary Issues in ASI | 3 |


| ASI | 601 | Physiology of Lactation | 3 | ASI | 601 | Physiology of Lactation | 3 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ASI | 602 | Equine Breeding/Genetics | 2 | ASI | 602 | Equine Breeding/Genetics | 2 |
| ASI | 610 | Processed Meat Operations | 2 | ASI | 608 | Dairy Foods Process \& Technol |  |
| ASI | 620 | Livestock Production Mngt | 2 | ASI | 610 | Processed Meat Operations | 2 |
| ASI | 650 | I.D. Data Management | 2 | ASI | 620 | Livestock Production Mngt | 2 |
| ASI | 655 | Behavior of Domestic Animals | 3 | ASI | 650 | I.D. Data Management | 2 |
| ASI | 675-679 | Non-Ruminant Ntrtn Modules | 1-4 | ASI | 655 | Behavior of Domestic Animals | 3 |
| ASI | 680-685 | Ruminant Nutrition Modules | 1-6 | ASI | 658 | Animal Growth \& Development |  |
| ASI | 695 | Equine Exercise Physiology | 3 | ASI | 675-679 | Non-Ruminant Ntrtn Modules 1 | 1-4 |
| ASI | 710 | Phys Repro Farm Animals | 3 | ASI | 680-685 | Ruminant Nutrition Modules 1 | 1-6 |
| ASI | 777 | Meat Technology | 3 | ASI | 695 | Equine Exercise Physiology | 3 |
|  |  |  |  | ASI | 710 | Phys Repro Farm Animals | 3 |
|  |  |  |  | ASI | 777 | Meat Technology | 3 |

RATIONALE:
We are adding 2 ASI classes to our restricted ASI course list under "minimum 9 hours". ASI 658 was not included in our original list as we did not have a faculty member to teach the course, we have since hired a faculty member to cover the course and now would like to add it into our curriculum. ASI 608 should have been included in the ASI restricted electives list on all of our options, but was inadvertently left off when we revised our 2011 curriculum.

IMPACT:

EFFECTIVE DATE: Fall 2012
B.S. in Agriculture: Animal Sciences \& Industry Major:

Science/Pre-Vet Option

FROM:

| GENERAL COURSES |  |  |  |  |
| :--- | :--- | :--- | :--- | :---: |
| GENAG | 101 | Ag Orientation -OR- | 1 |  |
| GENAG | 200 | College Careers | 0 |  |
| CHM | 210 | Chemistry I | 4 |  |
| BIOL | 198 | Principles of Biology | 4 |  |
| ECON | 110 | Prin Macro Economics | 3 |  |
| ENGL | 100 | Expository Writing I | 3 |  |
| ENGL | 200 | Expository Writing II | 3 |  |
| MATH | 100 | College Algebra | 3 |  |
| COMM | 105 | Public Speaking IA | 2 |  |
| AGRICULTURE |  |  |  |  |
| (Plus $\mathbf{2}$ courses - $\mathbf{2}$ other AG Depts. min. 5 hours) |  |  |  |  |

(Plus 2 courses - 2 other AG Depts. min. 5 hours) (1 hour courses cannot be applied)
AGCOM - AGCOM 400
AGEC - AGEC 120 to 420, 460, 500 to 525, 590 to 632, 712
ASI - ASI 660
ATM - ATM 160 to 329, 571, 572 to 661
AGRON - 220, 305, 330 to 385, 430, 501, 550, 630 to 660, 681 to 790
FDSCI - FDSCI 302, 660, 690
ENTOM - ENTOM 250 or 301, 300, 305, 312, 314 to 620, 692 to 767
GRSC - GRSC 100 to 120, 150, 305 to 510, 602 to 661, 710 to 737,750 to 785
HORT - HORT 201 to 525, 535 to 625, 706 to 751
FOR - FOR 210 to 311, 330 to 375, 510, 520, 643
RRES - RRES 210 to 490, 521 to 705
PLPTH - PLPTH 500 to 745
GENAG - GENAG 450, 505
BIOSCIENCES
$\begin{array}{lllr}\text { BIOL } & 455 & \begin{array}{l}\text { General Microbiology } \\ \text { (Minimum 12 hours) }\end{array} & 4 \\ \text { CHM } & 230 & \text { Chemistry II } & 4 \\ \text { CHM } & 350 & \text { General Organic Chemistry } & 3 \\ \text { CHM } & 351 & \text { General Organic Chemistry Lab 2 } \\ \text { BIOCH } & 521 & \text { General Biochemistry } & 3 \\ \text { BIOCH } & 522 & \text { General Biochemistry Lab } & 2\end{array}$ HUMANITIES/SOCIAL SCIENCE
(Minimum 9 hours)
(Must be taken from more than one department)
(Maximum 3 hours in performance courses)
AMETH - AMETH 160 to 501
ANTH - Any course
ARCH - ARCH 301
ART - Any course
DANCE - DANCE 120 to 200, 225 to 420, 495 to 690
DEN - DEN 325, 450
ECON - ECON 120-799
ENGL - ENGL 150, 210 to 299, 310, 320 to 399, 420 to
499, 536 to 599, 605 to 660,670 to 695,700 to 760,790 to 799
ENVD - ENVD 250, 251GEOG - GEOG 100, 200, 201, 300 to 799
HIST - Any course

TO:

|  |  | GENERAL COURSES |  |
| :--- | :--- | :--- | :--- |
| GENAG | 101 | Ag Orientation -OR- | 1 |
| GENAG | 200 | College Careers | 0 |
| CHM | 210 | Chemistry I | 4 |
| BIOL | 198 | Principles of Biology | 4 |
| ECON | 110 | Prin Macro Economics | 3 |
| ENGL | 100 | Expository Writing I | 3 |
| ENGL | 200 | Expository Writing II | 3 |
| MATH | 100 | College Algebra | 3 |
| COMM | 105 | Public Speaking IA | 2 |
|  |  | AGRICULTURE |  |

(Plus 2 courses - 2 other AG Depts. min. 5 hours)
(1 hour courses cannot be applied)
AGCOM - AGCOM 400
AGEC - AGEC 120 to 420, 460, 500 to 525, 590 to 632, 712 ASI - ASI 660
ATM - ATM 160 to 329, 571, 572 to 661
AGRON - 220, 305, 330 to 385, 430, 501, 550, 630 to 660, 681 to 790
FDSCI - FDSCI 302, 660, 690
ENTOM - ENTOM 250 or 301, 300, 305, 312, 314 to 620,
692 to 767
GRSC - GRSC 100 to 120, 150, 305 to 510, 602 to 661,710
to 737, 750 to 785
HORT - HORT 201 to 525, 535 to 625, 706 to 751
FOR - FOR 210 to 311, 330 to 375, 510, 520, 643
RRES - RRES 210 to 490, 521 to 705
PLPTH - PLPTH 500 to 745
GENAG - GENAG 450, 505

## BIOSCIENCES

BIOL 455 General Microbiology
(Minimum 12 hours)
CHM 230 Chemistry II 4
CHM 350 General Organic Chemistry 3
CHM 351 General Organic Chemistry Lab 2
BIOCH 521 General Biochemistry 3
BIOCH 522 General Biochemistry Lab 2
HUMANITIES/SOCIAL SCIENCE
(Minimum 9 hours)
(Must be taken from more than one department)
(Maximum 3 hours in performance courses)
AMETH - AMETH 160 to 501
ANTH - Any course
ARCH - ARCH 301
ART - Any course
DANCE - DANCE 120 to 200, 225 to 420, 495 to 690
DEN - DEN 325, 450
ECON - ECON 120-799
ENGL - ENGL 150, 210 to 299, 310, 320 to 399, 420 to 499, 536 to 599,605 to 660,670 to 695,700 to 760,790 to
799
ENVD - ENVD 250, 251GEOG - GEOG 100, 200, 201, 300 to 799
HIST - Any course
FSHS - Any course

| FSHS - Any course |  |  |  | MUSIC - Any course |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MUSIC - Any course |  |  |  | Modern Language - Any course in ARAB, CHINE, FREN, |  |  |  |
| FREN, GRM, ITAL, JAPAN, LATIN, PORT, RUSSN, SPAN, URDU |  |  |  | GRM, ITAL, JAPAN, LATIN, PORT, RUSSN, SPAN, |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  | PHILO - Any course |  |  |  |
| PHILO - Any course |  |  |  | POLSC - Any course |  |  |  |
| POLSC - Any course |  |  |  | PSYCH - Any course |  |  |  |
| PSYCH - Any course |  |  |  | SOCIO - Any course |  |  |  |
| SOCIO - Any course |  |  |  | SOCWK - Any course |  |  |  |
| SOCWK - Any course |  |  |  | DANCE - Any course |  |  |  |
| DANCE - Any course |  |  |  | DANCE - Any courseTHTRE - Any course |  |  |  |
| THTRE - Any course |  |  |  | WOMST - Any course |  |  |  |
| WOMS | - Any | course <br> USINESS \& ECONOMICS <br> ( 2 courses, total 6 hours) |  | BUSINESS \& ECONOMICS (2 courses, total 6 hours) |  |  |  |
| AGEC - AGEC 202 to 420, 445 to 799 |  |  |  | ACCTG - ACCTG 231 to 799 |  |  |  |
| ACCTG - ACCTG 231 to 799 |  |  |  | FINAN - Any course |  |  |  |
| FINAN - Any course |  |  |  | FSHS - FSHS 105 |  |  |  |
| FSHS - FSHS 105 |  |  |  | MANGT - Any course |  |  |  |
| MANGT - Any course |  |  |  | MKTG - Any course |  |  |  |
| MKTG - Any course |  |  |  | PHYSICS/MATH/STATISTICS <br> (Minimum 6 hours) |  |  |  |
| (Minimum 6 hours) |  |  |  | MATH - MATH 150, 205, 210, 211, 220, 221, 222 |  |  |  |
| MATH - MATH 150, 205, 210, 211, 220, 221, 222 |  |  |  | PHYS - PHYS 113, 114 |  |  |  |
| PHYS - PHYS 113, 114 |  |  |  | STAT - STAT 325, 340, 350 |  |  |  |
| STAT - STAT 325, 340, 350 |  |  |  | COMMUNICATIONS |  |  |  |
| COMMUNICATIONS(Minimum 3 hours) |  |  |  | AGCOM - AGCOM 310, 400, 410 |  |  |  |
|  |  |  |  |  |  |  |  |
| AGCOM - AGCOM 310, 400, 410 |  |  |  | COMM - COMM 311, 321, 322, 326 |  |  |  |
| COMM - COMM 311, 321, 322, 326 |  |  |  | ENGL - ENGL 300, 516 |  |  |  |
| ENGL - ENGL 300, 516 |  |  |  | MC - MC 110, 111, 112, 120, \& 180 |  |  |  |
| MC - MC 110, 111, 112, 120, \& 180 |  |  |  | Modern Language - Any course in ARAB, CHINE, FREN, |  |  |  |
| Modern Language - Any course in ARAB, CHINE, FREN, GRM, ITAL, JAPAN, LATIN, PORT, RUSSN, SPAN, URDU |  |  |  | GRM, ITAL, JAPAN, LATIN, PORT, RUSSN, SPAN,URDU |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  | ANIMAL SCIENCE |  |  |  |
| SPAN, URDU ANIMAL SCIENCE |  |  |  | ASI | 102 | Prin Animal Science | 3 |
| ASI | 102 | Prin Animal Science | 3 | ASI | 105 | Animal Sciences \& Ind Lab | 1 |
| ASI | 105 | Animal Sciences \& Ind Lab | 1 | ASI | 106 | Dairy/Poultry Lab | 1 |
| ASI | 106 | Dairy/Poultry Lab | 1 | ASI | 107 | Comp Anml/Horse Lab | 1 |
| ASI | 107 | Comp Anml/Horse Lab | 1 | ASI | 318 | Fund. of Nutrition | 3 |
| ASI | 318 | Fund. of Nutrition | 3 | ASI | 320 | Principles of Feeding | 3 |
| ASI | 320 | Principles of Feeding | 3 | ASI | 400 | Farm Animal Reproduction | 4 |
| ASI | 400 | Farm Animal Reproduction | 4 | ASI | 500 | Genetics | 3 |
| ASI | 500 | Genetics | 3 | ASI | 580 | ASI Seminar | 1 |
| ASI | 580 | ASI Seminar | 1 |  |  | (Select 1 course) |  |
|  |  | (Select 1 course) |  | ASI | 350 | Meat Science | 3 |
| ASI | 350 | Meat Science | 3 | ASI | 405 | Fund Milk Processing | 3 |
| ASI | 405 | Fund Milk Processing | 3 | ASI | 361 | Meat Animal Processing | 2 |
| ASI | 361 | Meat Animal Processing | 2 | ASI | 601 | Physiology of Lactation | 3 |
| ASI | 601 | Physiology of Lactation | 3 | ASI | 640 | Poultry Product Tech | 3 |
| ASI | 640 | Poultry Product Tech | 3 | ASI | 695 | Equine Exercise Physiology | 3 |
| ASI | 695 | Equine Exercise Physiology | 3 | FDSCI | 305 | Fund of Food Processing | 3 |
| FDSCI | 305 | Fund of Food Processing (Select 2 courses) | 3 | ASI | 515 | (Select 2 courses) <br> Beef Science | 3 |
| ASI | 515 | Beef Science | 3 | ASI | 520 | Companion/Lab Animal Mngt | 3 |
| ASI | 520 | Companion/Lab Animal Mngt | 3 | ASI | 521 | Horse Science | 3 |
| ASI | 521 | Horse Science | 3 | ASI | 524 | Sheep/Meat Goat Science | 3 |
| ASI | 524 | Sheep/Meat Goat Science | 3 | ASI | 535 | Swine Science | 3 |
| ASI | 535 | Swine Science | 3 | ASI | 621 | Dairy Cattle Management | 3 |
| ASI | 621 | Dairy Cattle Management | 3 | ASI | 645 | Poultry Management | 3 |

\(\left.\begin{array}{|lcll|lll|}\hline ASI \& 645 \& \begin{array}{l}Poultry Management <br>

(Minimum 9 hours)\end{array} \& 3 \& \& \& (Minimum 9 hours)\end{array}\right]\)| ASI |
| :--- |
| ASI |

RATIONALE: We are adding 2 ASI classes to our restricted ASI course list under "minimum 9 hours". ASI 658 was not included in our original list as we did not have a faculty member to teach the course, we have since hired a faculty member to cover the course and now would like to add it into our curriculum. ASI 608 should have been included in the ASI restricted electives list on all of our options, but was inadvertently left off when we revised our 2011 curriculum.

## IMPACT:

No impact on other departments.
EFFECTIVE DATE: Fall 2012
B.S. in Agriculture: Animal Sciences \& Industry Major:

Production/Management Option

FROM:

| GENERAL COURSES |  |  |  |
| :--- | :--- | :--- | :--- |
| GENAG | 101 | Ag Orientation -OR- | 1 |
| GENAG | 200 | College Careers | 0 |
| CHM | 110 | General Chemistry | 3 |
| CHM | 111 | General Chemistry Lab | 1 |
| BIOL | 198 | Principles of Biology | 4 |
| ECON | 110 | Prin Macro Economics | 3 |
| ENGL | 100 | Expository Writing I | 3 |
| ENGL | 200 | Expository Writing II | 3 |
| MATH | 100 | College Algebra | 3 |
| COMM | 105 | Public Speaking IA | 2 |
|  | $\quad$ AGRICULTURE |  |  |
| AGEC | 120 | Ag Econ \& Agribusiness | 3 |

(Plus 3 courses - 2 other AG Depts. min. 8 hours)
(1 hour courses cannot be applied)
AGCOM - AGCOM 400
AGEC - AGEC 120 to 420,460, 500 to 525, 590 to 632, 712
ASI - ASI 660
ATM - ATM 160 to 329, 571, 572 to 661
AGRON - 220, 305, 330 to 385, 430, 501, 550, 630 to 660, 681 to 790
FDSCI - FDSCI 302, 660, 690
ENTOM - ENTOM 250 or 301, 300, 305, 312, 314 to 620,
692 to 767
GRSC - GRSC 100 to $120,150,305$ to 510,602 to 661 , 710 to 737,750 to 785
HORT - HORT 201 to 525, 535 to 625, 706 to 751
FOR - FOR 210 to 311, 330 to 375, 510, 520, 643
RRES - RRES 210 to 490, 521 to 705
PLPTH - PLPTH 500 to 745
GENAG - GENAG 450, 505
BIOSCIENCES
BIOCH 265 Intro Org \& BioChem 5

## HUMANITIES/SOCIAL SCIENCE

(Minimum 9 hours)
(Must be taken from more than one department)
(Maximum 3 hours in performance courses)
AMETH - AMETH 160 to 501
ANTH - Any course
ARCH - ARCH 301
ART - Any course
DANCE - DANCE 120 to 200, 225 to 420, 495 to 690
DEN - DEN 325, 450
ECON - ECON 120-799
ENGL - ENGL 150, 210 to 299, 310, 320 to 399, 420 to
499, 536 to 599, 605 to 660, 670 to 695, 700 to 760, 790 to 799
ENVD - ENVD 250, 251
GEOG - GEOG 100, 200, 201, 300 to 799
HIST - Any course
FSHS - Any course
MUSIC - Any course
Modern Language - Any course in ARAB, CHINE,

TO:

| GENERAL COURSES |  |  |  |
| :--- | :---: | :--- | :--- |
| GENAG | 101 | Ag Orientation -OR- | 1 |
| GENAG | 200 | College Careers | 0 |
| CHM | 110 | General Chemistry | 3 |
| CHM | 111 | General Chemistry Lab | 1 |
| BIOL | 198 | Principles of Biology | 4 |
| ECON | 110 | Prin Macro Economics | 3 |
| ENGL | 100 | Expository Writing I | 3 |
| ENGL | 200 | Expository Writing II | 3 |
| MATH | 100 | College Algebra | 3 |
| COMM | 105 | Public Speaking IA | 2 |
|  |  | AGRICULTURE |  |
| AGEC | 120 | Ag Econ \& Agribusiness | 3 |

(1 hour courses cannot be applied)
AGCOM - AGCOM 400
AGEC - AGEC 120 to 420,460, 500 to 525, 590 to 632, 712
ASI - ASI 660
ATM - ATM 160 to 329, 571, 572 to 661
AGRON - 220, 305, 330 to 385, 430, 501, 550, 630 to 660, 681 to 790
FDSCI - FDSCI 302, 660, 690
ENTOM - ENTOM 250 or 301, 300, 305, 312, 314 to 620, 692 to 767
GRSC - GRSC 100 to $120,150,305$ to 510,602 to 661 , 710 to 737,750 to 785
HORT - HORT 201 to 525, 535 to 625, 706 to 751
FOR - FOR 210 to 311, 330 to 375, 510, 520, 643
RRES - RRES 210 to 490, 521 to 705
PLPTH - PLPTH 500 to 745
GENAG - GENAG 450, 505
BIOSCIENCES
BIOCH 265 Intro Org \& BioChem 5
HUMANITIES/SOCIAL SCIENCE
(Minimum 9 hours)
(Must be taken from more than one department)
(Maximum 3 hours in performance courses)
AMETH - AMETH 160 to 501
ANTH - Any course
ARCH - ARCH 301
ART - Any course
DANCE - DANCE 120 to 200, 225 to 420, 495 to 690
DEN - DEN 325, 450
ECON - ECON 120-799
ENGL - ENGL 150, 210 to 299, 310, 320 to 399, 420 to
499, 536 to 599, 605 to 660,670 to 695,700 to 760,790
to 799
ENVD - ENVD 250, 251
GEOG - GEOG 100, 200, 201, 300 to 799
HIST - Any course
FSHS - Any course
MUSIC - Any course
Modern Language - Any course in ARAB, CHINE,


| ASI | 521 | Horse Science | 3 | ASI | 521 | Horse Science | 3 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ASI | 524 | Sheep/Meat Goat Science | 3 | ASI | 524 | Sheep/Meat Goat Science | 3 |
| ASI | 535 | Swine Science | 3 | ASI | 535 | Swine Science | 3 |
| ASI | 621 | Dairy Cattle Management | 3 | ASI | 621 | Dairy Cattle Management | 3 |
| ASI | 645 | Poultry Management (Minimum 9 hours) | 3 | ASI | 645 | Poultry Management (Minimum 9 hours) | 3 |
| ASI | 315 | Livestock \& Meat Eval | 3 | ASI | 315 | Livestock \& Meat Eval | 3 |
| ASI | 504 | Equine Repro Mngt | 3 | ASI | 504 | Equine Repro Mngt | 3 |
| ASI | 512 | Bovine Repro Tech | 2 | ASI | 512 | Bovine Repro Tech | 2 |
| ASI | 540 | Principles of Animal Disease | 3 | ASI | 540 | Principles of Animal Disease | 3 |
| ASI | 595 | Contemp Issues ASI | 3 | ASI | 595 | Contemp Issues ASI | 3 |
| ASI | 600 | Applied Animal Biotech | 2 | ASI | 600 | Applied Animal Biotech | 2 |
| ASI | 601 | Physiology of Lactation | 3 | ASI | 601 | Physiology of Lactation | 3 |
| ASI | 602 | Equine Breeding/Genetics | 2 | ASI | 602 | Equine Breeding/Genetics | 2 |
| ASI | 610 | Processed Meat Ops | 2 | ASI | 608 | Dairy Foods Process \& Technol |  |
| ASI | 620 | Lvstk Prod \& Mngmt | 2 | ASI | 610 | Processed Meat Ops | 2 |
| ASI | 650 | Id Data Management | 2 | ASI | 620 | Lvstk Prod \& Mngmt | 2 |
| ASI | 655 | Behavior of Domestic Animals | 3 | ASI | 650 | Id Data Management | 2 |
| ASI | 675-679 | Non-Ruminant Modules | 1-4 | ASI | 655 | Behavior of Domestic Animals | 3 |
| ASI | 680-685 | Ruminant Modules | 1-6 | ASI | 658 | Animal Growth \& Developmen |  |
| ASI | 695 | Equine Exercise Physiol | 3 | ASI | 675-679 | Non-Ruminant Modules 1 | -4 |
| ASI | 710 | Phys Repro Farm Anml | 3 | ASI | 680-685 | Ruminant Modules 1 | -6 |
| ASI | 777 | Meat Technology | 3 | ASI | 695 | Equine Exercise Physiol | 3 |
|  |  |  |  | ASI | 710 | Phys Repro Farm Anml | 3 |
|  |  |  |  | ASI | 777 | Meat Technology | 3 |

RATIONALE: We are adding 2 ASI classes to our restricted course lists. ASI 658 was originally included in our restricted list of bioscience/biotechonology courses, however we did not have a faculty member to teach the course so we had it removed, we have since hired a faculty member to cover the course and now would like to add it back into our curriculum. ASI 608 should have been included in the ASI restricted electives list under "select 2 courses", but was inadvertently left off when we revised our 2011 curriculum.

IMPACT: No impact on other departments.
EFFECTIVE DATE: Fall 2012
B.S. in Food Science \& Industry:

Business \& Operations Management Option

FROM:
$\begin{array}{ll}\text { GENERAL COURSES (10-12 credit hours) } \\ \text { COMM 105 - Public Speaking IA } & \text { (2) } \\ \text { or } & \\ \text { COMM } 106 \text { - Public Speaking I } & \text { (3) } \\ \text { ENGL 100 - Expository Writing I } & \text { (3) } \\ \text { ENGL 200 - Expository Writing II } & \text { (3) } \\ \text { Additional communications course } & (2-3)\end{array}$
SOCIAL SCIENCES \& HUMANITIES ( 12 credit hours)

ECON 110 - Principles of Macroeconomics (3)
Select 9 hours
Suggested Courses (must be taken from more than one department):

Art - any course
Communication Studies, Theatre and Dance - any
course
Economics - any course between ECON 120-
ECON 735
English - any, except ENGL 100 Expository
Writing I and ENGL 200 Expository Writing II
Family Studies and Human Services - any course
Geography - any, except GEOG 221-
Environmental Geography I and GEOG 321-
Environmental Geography II
History - any course
Music - any course
Philosophy - any course
Political Science - any course
Psychology - any course
Sociology, Anthropology, and Social Work - any course
ARCH 301 -Appreciation of Architecture
WOMST 105 -Introduction to Women's Studies(3)
BIOLOGICAL SCIENCES (8 credit hours)
BIOL 198 - Principles of Biology
BIOL 455 - General Microbiology
QUANTITATIVE STUDIES ( 9 credit hours)
MATH 100 - College Algebra
MATH 205 - General Calculus and Linear Algebra (3)

STAT 350 - Business and Economic Statistics I (3)
PHYSICAL SCIENCES (13 credit hours)
BIOCH 265 - Introductory Organic and Biochemistry Credits: (5)
CHM 210 - Chemistry I (4)
CHM 230 - Chemistry II (4)
PROFESSIONAL ELECTIVES ( 25 credit hours)
Must have 3 processing electives from at least 2 commodity areas - Dairy, Grain, Meat, or Fruit/Vegetables.
Other professional electives can be substituted as appropriate.

TO:
GENERAL COURSES (10-12 credit hours) COMM 105 - Public Speaking IA (2) or
COMM 106 - Public Speaking I (3)
ENGL 100 - Expository Writing I (3)
ENGL 200 - Expository Writing II (3)
Additional communications course (2-3)
SOCIAL SCIENCES \& HUMANITIES ( 12 credit hours)

ECON 110 - Principles of Macroeconomics (3)

## Select 9 hours

Suggested Courses (must be taken from more than one department):

Art - any course
Communication Studies, Theatre and Dance - any
course
Economics - any course between ECON 120-
ECON 735
English - any, except ENGL 100 Expository
Writing I and ENGL 200 Expository Writing II
Family Studies and Human Services - any course
Geography - any, except GEOG 221-
Environmental Geography I and GEOG 321-
Environmental Geography II
History - any course
Music - any course
Philosophy - any course
Political Science - any course
Psychology - any course
Sociology, Anthropology, and Social Work - any
course
ARCH 301 -Appreciation of Architecture
WOMST 105 -Introduction to Women's Studies (3)
BIOLOGICAL SCIENCES (8 credit hours)
BIOL 198 - Principles of Biology
BIOL 455 - General Microbiology
QUANTITATIVE STUDIES ( 9 credit hours)
MATH 100 - College Algebra
MATH 205 - General Calculus and Linear Algebra (3)

STAT 350 - Business and Economic Statistics I (3)
PHYSICAL SCIENCES (13 credit hours)
BIOCH 265 - Introductory Organic and
Biochemistry (5)
CHM 210 - Chemistry I (4)
CHM 230 - Chemistry II (4)
PROFESSIONAL ELECTIVES ( 25 credit hours)
Must have 3 processing electives from at least 2
commodity areas - Dairy, Grain, Meat, or
Fruit/Vegetables.
Other professional electives can be substituted as appropriate.

## Food Science Electives

AGRON 335 - Environmental Quality (3)
ASI 303 - History and Attitudes of Animal Use (3)
ASI 310 - Poultry and Poultry Product Evaluation (2)

ASI 315 - Livestock and Meat Evaluation (3)
ASI 490 - Microcomputer Applications in Animal
Sciences and Industry (3)
ASI 500 - Genetics (3)
ASI 533 - Anatomy and Physiology (4)
ASI 595 - Contemporary Issues in Animal Science and Agriculture (3)
ASI 640 - Poultry Products Technology (3)
ASI 645 - Poultry Management (3)

FDSCI 430 - Food Products Evaluation (3)
FDSCI 603 - Food Science Internship (1-6)
FDSCI 630 - Food Science Problems (Variable)
FDSCI 713 - Rapid Methods and Automation in Microbiology (2)

FDSCI 791 - Advanced Application of HACCP Principles (3)
GNHE 310 - Human Needs (3)
GRSC 602 Gereal Science (3)

GRSC 651 - Food and Feed Product Protection (4)
GRSC 661 - Qualities of Food and Feed Ingredients (3)
HN 132 Basic Nutrition (3)
HN 301 - Food Trends, Legislation, and
Regulation (3)
HN 352 - Personal Wellness (3)
HN 413 - Science of Food (4)
HN 701 - Sensory Analysis (3)

STAT 341 - Biometrics II (3)

## Communications

Any foreign language
Completion of ASI 495 Advanced Meat
Evaluation
AGCOM 400 - Agricultural Business
Communications (3)
AGCOM 590 - New Media Technology (3)
AGCOM 610 - Crisis Communication (3)
COMM 311 - Business and Professional Speaking

Food Science Electives
AGEC 120 - Ag Econ \& Agribusiness (3)
ECON 120- Prin Micro Economics (3)
AGRON 335 - Environmental Quality (3)
ASI 303 - History and Attitudes of Animal Use (3)
ASI 310 - Poultry and Poultry Product Evaluation
(2)

ASI 315 - Livestock and Meat Evaluation (3)
ASI 490 - Microcomputer Applications in Animal
Sciences and Industry (3)
ASI 500 - Genetics (3)
ASI 533 - Anatomy and Physiology (4)
ASI 595 - Contemporary Issues in Animal Science and Agriculture (3)
ASI 640 - Poultry Products Technology (3)
ASI 645 - Poultry Management (3)
ASI 660 - International Experience in ASI (3)
BIOL 330 - Public Health Biology (3)
FDSCI 430 - Food Products Evaluation (3)
FDSCI 603 - Food Science Internship (1-6)
FDSCI 630 - Food Science Problems (Variable)
FDSCI 713 - Rapid Methods and Automation in Microbiology (2)
FDSCI 731 - Food Prot and Def:Essential Concepts (2)

FDSCI 791 - Advanced Application of HACCP
Principles (3)

GENAG 711 - Occupational \& Ag Health (3) GENAG 721 - Occupational \& Ag Safety \& Health (3)

GRSC 651 - Food and Feed Product Protection (4)
GRSC 661 - Qualities of Food and Feed Ingredients
(3)

HN 301 - Food Trends, Legislation, and Regulation (3)

HN 352 - Personal Wellness (3)
HN 701 - Sensory Analysis (3)
HMD 220 - Environmental Issues in Hospitality (3)
HMD 341 - Principles of Food Production
Management (3)
HMD 442 - Introduction to Wines (1)
PHYS 113 - General Physics I (4)
PHYS 114 - General Physics II (4)
STAT 341 - Biometrics II (3)
STAT 351 - Business \& Econ Stat II (3)

## Communications

Any foreign language
Completion of ASI 495 Advanced Meat Evaluation
AGCOM 400 - Agricultural Business
Communications (3)
AGCOM 590 - New Media Technology (3)
AGCOM 610 - Crisis Communication (3)
COMM 311 - Business and Professional Speaking (3)
(3)

COMM 321 - Public Speaking II (3)
COMM 322 - Interpersonal Communication (3)
COMM 326 - Small Group Discussion Methods(3)
COMM 535 - Communication and Leadership (3)
ENGL 300 - Expository Writing III (3)
ENGL 516 - Written Communication for the
Sciences (3)
GENAG-450 Gitizenship and Ethies in
Agriculture (3)
MKTG 542 - Professional Selling and Sales
Management (3)
MC 110 - Mass Communication in Society (3)
MC 120 - Principles of Advertising (3)
MC 180 - Fundamentals of Public Relations (3)
SOCWK 310 - Topics in Social Work (1-3)
Technology Electives
ASI 490 - Microcomputer Applications in Animal Sciences and Industry (3)
ATM 160 - Engineered Systems and Technology in Agriculture (3)
ATM 450 - Sensors and Controls for Agricultural and Biological Systems (3)
ATM 455-Engines and Power Transfer (3)
ATM 661 - Watershed Management (3)
BAE 345 - Properties of Biological Materials (2)
CIS 101 - Introduction to Computing Systems,
Information Search, and Security (1)
CIS 102 - Introduction to Spreadsheet Applications (1)

CIS 103 - Introduction to Database Applications(1)
CIS 104 - Introduction to Word Processing
Applications (1)
CIS 105 - Introduction to Computer Programming
(1)

GRSC 540 - Engineering Applications to
Grain/Food Products (3)
GRSC 541 - Engineering Applications to
Grain/Food Products Laboratory (1)

## Processing Electives

ASI 310 - Poultry and Poultry Product Evaluation (2)

ASI 350 - Meat Science (3)
ASI 361 - Meat Animal Processing (2)
ASI 370 - Principles of Meat Evaluation (2)
ASI 405 - Fundamentals of Milk Processing (3)
ASI 495 - Advanced Meat Evaluation (2)
ASI 608 - Dairy Foods Processing \& Techonology (3)

ASI 610 - Processed Meat Operations (2)
ASI 640 - Poultry Products Technology (3)
ASI 671 - Meat Selection and Utilization (2)
ASI 777 - Meat Technology (3)
FDSCI 660 - International Study Experience in
Food Science (0-6)
GRSC 101 - Introduction to Grain Science and Industry (3)
GRSC 150 - Principles of Milling (3)
GRSC 405 - Grain Analysis Techniques (2)

COMM 321 - Public Speaking II (3)
COMM 322 - Interpersonal Communication (3)
COMM 326 - Small Group Discussion Methods (3)
COMM 535 - Communication and Leadership (3)
ENGL 300 - Expository Writing III (3)
ENGL 516 - Written Communication for the
Sciences (3)

HMD 443 - Food Writing (3)

MC 110 - Mass Communication in Society (3)
MC 120 - Principles of Advertising (3)
MC 180 - Fundamentals of Public Relations (3)
SOCWK 612 - Fund Comm for Ag \& Food Sci (3)

## Technology Electives

ASI 490 - Microcomputer Applications in Animal Sciences and Industry (3)
ATM 160 - Engineered Systems and Technology in Agriculture (3)
ATM 450 - Sensors and Controls for Agricultural and Biological Systems (3)

CIS 101 - Introduction to Computing Systems, Information Search, and Security (1)
CIS 102 - Introduction to Spreadsheet Applications
(1)

CIS 103 - Introduction to Database Applications (1)
CIS 104 - Introduction to Word Processing
Applications (1)
CIS 105 - Introduction to Computer Programming
(1)

GRSC 540 - Engineering Applications to
Grain/Food Products (3)
GRSC 541 - Engineering Applications to
Grain/Food Products Laboratory (1)
Processing Electives
ASI 310 - Poultry and Poultry Product Evaluation
(2)

ASI 350 - Meat Science (3)
ASI 361 - Meat Animal Processing (2)
ASI 370 - Principles of Meat Evaluation (2)
ASI 405 - Fundamentals of Milk Processing (3)
ASI 495 - Advanced Meat Evaluation (2)
ASI 608 - Dairy Foods Processing \& Techonology
(3)

ASI 610 - Processed Meat Operations (2)
ASI 640 - Poultry Products Technology (3)
ASI 671 - Meat Selection and Utilization (2)
ASI 777 - Meat Technology (3)
FDSCI 660 - International Study Experience in
Food Science (0-6)
GRSC 101 - Introduction to Grain Science and Industry (3)
GRSC 150 - Principles of Milling (3)
GRSC 405 - Grain Analysis Techniques (2)
GRSC 602 - Cereal Science (3)

GRSC 625 - Flour and Dough Testing (3)
GRSC 635 - Baking Science I (2)
GRSC 636 - Baking Science I Laboratory (2)
GRSC 637 - Baking Science II (3)
GRSC 638 - Baking Science II Laboratory (1)

## Business, Management \& Economics Electives

 Courses used to fulfill the 15 credit hours of Minor requirements cannot be used for Professional Elective requirements.ACCTG 231 - Accounting for Business Operations (3)

ACCTG 241 - Accounting for Investing and Financing (3)
AGEC 120-Agricultural Economics and
Agribusiness (3)

AGEC 308 - Farm and Ranch Management (3)
AGEC 318 - Food and Agribusiness Management (3)

AGEC 410 - Agricultural Policy (3)
AGEC 415 - The Global Agricultural Economy, Hunger, and Poverty (3)
AGEC 420 - Commodity Futures (3)
AGEC 505 - Agricultural Market Structures (3)
AGEC 515 - Food and Agribusiness Marketing (3)
AGEC 516 - Agricultural Law and Economics (3)
AGEC 520 - Market Fundamentals and
Futures/Options Trading (3)
AGEC 570 - Food Manufacturing, Distribution and Retailing (3)
AGEC 599 - Food and Agribusiness Management Strategies (3)
AGEC 605 - Price Analysis and Forecasting (3)
AGEC 623 - International Agricultural Trade (3)
AGEC 632 - Agribusiness Logistics (3)
AGEC 680 - Risk Management (3)
CIS 101 - Introduction to Computing Systems, Information Search, and Security (1)
GIS 102 Introduction to Spreadsheet Applications (1)

GIS 103 - Introduction to Database Applications
(1)

EIS 104-Introduction to Word Processing Applications (1)
EIS 105-Introduction to Computer Programming (1)

ECON 120-Principles of Microeconomics (3)

ECON 520 - Intermediate Microeconomics (3)
FINAN 450 - Principles of Finance (3)
MANGT 300 - Introduction to Total Quality
Management (1)
MANGT 366 - Information Technology for

GRSC 625 - Flour and Dough Testing (3)
GRSC 635 - Baking Science I (2)
GRSC 636 - Baking Science I Laboratory (2)
GRSC 637 - Baking Science II (3)
GRSC 638 - Baking Science II Laboratory (1)
HORT 325 - Introduction to Organic Farming (2)
Business, Management \& Economics Electives
Courses used to fulfill the 15 credit hours of business/management \& economics electives cannot be used for professional elective requirements.
ACCTG 231 - Accounting for Business Operations (3)

ACCTG 241 - Accounting for Investing and Financing (3)

AGEC 202 - Small Business Operations (3)
AGEC 220 - Grain and Livestock Marketing 3
AGEC 308 - Farm and Ranch Management (3)
AGEC 318 - Food and Agribusiness Management
(3)

AGEC 410 - Agricultural Policy (3)
AGEC 415 - The Global Agricultural Economy, Hunger, and Poverty (3)
AGEC 420 - Commodity Futures (3)
AGEC 500 - Production Economics (3)
AGEC 505 - Agricultural Market Structures (3)
AGEC 513 - Agriculture Finance (3)
AGEC 515 - Food and Agribusiness Marketing (3)
AGEC 516 - Agricultural Law and Economics (3)
AGEC 520 - Market Fundamentals and
Futures/Options Trading (3)
AGEC 570 - Food Manufacturing, Distribution and
Retailing (3)
AGEC 599 - Food and Agribusiness Management Strategies (3)
AGEC 605 - Price Analysis and Forecasting (3)
AGEC 623 - International Agricultural Trade (3)
AGEC 632 - Agribusiness Logistics (3)
AGEC 680 - Risk Management (3)

ECON 510 - Intermediate Macro Economics (3)
ECON 520 - Intermediate Microeconomics (3)
FINAN 450 - Principles of Finance (3)
MANGT 300 - Introduction to Total Quality Management (1)
MANGT 366 - Information Technology for
Business (3)

| Business (3) <br> MANGT 390 - Business Law I (3) <br> MANGT 420 - Management Concepts-Salina <br> eampus (3) <br> MANGT 421 - Introduction to Operations <br> Management-Salina campus (3) <br> MANGT 530 - Industrial and Labor Relations (3) <br> MANGT 531 - Human Resources Management (3) <br> MKTG 400 - Introduction to Marketing (3) <br> MKTG 450 - Consumer Behavior (3) <br> MKTG 541 - Retailing (3) <br> MKTG 542 - Professional Selling and Sales <br> Management-Salina campus (3) <br> MINOR (15 credit hours) <br> Select one minor: <br> Business Minor <br> Agribusiness Minor <br> Agricultural Economics Minor <br> UNRESTRICTED ELECTIVES (7-12 credit hours) <br> CORE FOOD SCIENCE COURSES (22-24 credit <br> hours) <br> Must have 2.0 GPA average. <br> FDSCI 302 - Introduction to Food Science (3) <br> FDSCI 305 - Fundamentals of Food Processing (3) <br> FDSCI 500 - Food Science Seminar (1) <br> FDSCI 607 - Food Microbiology (4) <br> FDSCI 690 - Principles of HACCP (2) <br> HN 132 - Basic Nutrition (3) <br> Select One <br> FDSCI 695 - Quality Assurance of Food Products <br> (3) <br> or <br> FDSCI 740 - Research and Development of Food <br> Products (4) <br> Select One <br> FDSCI 501 - Food Chemistry (3) <br> or <br> HN 413 - Science of Food (4) <br> Total hours required for graduation (126 credit hours) | MANGT 390 - Business Law I (3) <br> MANGT 420 - Management Concepts (3) <br> MANGT 421 - Introduction to Operations <br> Management (3) <br> MANGT 530 - Industrial and Labor Relations (3) <br> MANGT 531 - Human Resources Management (3) <br> MKTG 400 - Introduction to Marketing (3) <br> MKTG 450 - Consumer Behavior (3) <br> MKTG 541 - Retailing (3) <br> MKTG 542 - Professional Selling and Sales <br> Management (3) <br> BUSINESS, MANAGEMENT \& ECONOMICS <br> Select 15 credits from the business courses listed above. Students are strongly encouraged to complete a minor in either Business Administration, Agricultural Economics or Agricultural Business. <br> UNRESTRICTED ELECTIVES (7-12 credit hours) CORE FOOD SCIENCE COURSES (22-24 credit hours) <br> Must have 2.0 GPA average. <br> FDSCI 302 - Introduction to Food Science (3) <br> FDSCI 305 - Fundamentals of Food Processing (3) <br> FDSCI 500 - Food Science Seminar (1) <br> FDSCI 607 - Food Microbiology (4) <br> FDSCI 690 - Principles of HACCP (2) <br> HN 132 - Basic Nutrition (3) <br> Select One <br> FDSCI 695 - Quality Assurance of Food Products <br> (3) <br> or <br> FDSCI 740 - Research and Development of Food <br> Products (4) <br> Select One <br> FDSCI 501 - Food Chemistry (3) <br> or <br> HN 413 - Science of Food (4) <br> Total hours required for graduation (126 credit hours) |
| :---: | :---: |

RATIONALE: We are requesting two curriculum changes for the FDSCI Business \& Operations Management Option. The first change is to remove, add, or recategorize courses under different subcategories within the professional electives block. Courses being removed are no longer offered, are no longer taken by FDSCI students, or have pre-requisites FDSCI students most likely will be unable to meet. Courses added to the professional electives block are newer courses that were not available previously, courses commonly used as variances, or courses with significant relevance to FDSCI program.

The second change we are proposing is to no longer require students to complete a minor in business administration, ag economics or ag business. This change would reduce confusion in the DARS report and give students business selection options that could more closely meet their professional course objectives. Currently, there are three professional elective sections in DARS which include professional electives, processing electives and the respective three minor options. They are repetitive and students need to select one. There is continued difficulty in understanding this concept. By changing from a required minor to a recommended minor, the DARS could be simplified and have a Business requirement (section) of 15 hrs that will include
the courses needed to meet the three minors. Students will continue to be encouraged to obtain a minor in business administration, ag economics or ag business.

IMPACT:
This proposal is expected to have minimal impact on courses taken by FDSCI students. Since removed courses were not being taken and re categorized courses remain in the professional electives block, we expect no change in the status of these courses. For courses added to the curriculum, we would anticipate a potential increase of 0-2 students per year as these courses are part of a larger professional electives block. This proposal has been shared with AGEC, ATM, BAE, BIOL, ECON, HMD, GENAG, HORT, PHYS, and STAT and we have received written (email) approval and support of these changes from Department Heads and/or Teaching Coordinators of their respective programs.

## EFFECTIVE DATE: Fall 2012

## B.S. in Food Science \& Industry: Science Option

## FROM: TO:

| General Courses (10-12 credit hours) | General Courses (10-12 credit hours) |
| :---: | :---: |
| COMM 105 - Public Speaking IA (2) | COMM 105 - Public Speaking IA (2) |
| or | or |
| COMM 106 - Public Speaking I (3) | COMM 106 - Public Speaking I (3) |
| ENGL 100 - Expository Writing I (3) | ENGL 100 - Expository Writing I (3) |
| ENGL 200 - Expository Writing II (3) | ENGL 200 - Expository Writing II (3) |
| Additional communications course (2-3) | Additional communications course (2-3) |
| Social Sciences and Humanities (12 credit hours) | Social Sciences and Humanities (12 credit hours) |
| ECON 110 - Principles of Macroeconomics (3) | ECON 110 - Principles of Macroeconomics (3) |
| Humanities/social sciences courses | Humanities/social sciences courses |
| Suggested Courses (must be taken from more than one department): | Suggested Courses (must be taken from more than one department): |
| Art - any course | Art - any course |
| Communication Studies, Theatre and Dance - any course | Communication Studies, Theatre and Dance - any course |
| Economics - any course between ECON 120- | Economics - any course between ECON 120- |
| ECON 735 | ECON 735 |
| English - any, except ENGL 100 Expository | English - any, except ENGL 100 Expository |
| Writing I and ENGL 200 Expository Writing II | Writing I and ENGL 200 Expository Writing II |
| Family Studies and Human Services - any course | Family Studies and Human Services - any course |
| Geography - any, except GEOG 221- | Geography - any, except GEOG 221- |
| Environmental Geography I and GEOG 321- | Environmental Geography I and GEOG 321- |
| Environmental Geography II | Environmental Geography II |
| History - any course | History - any course |
| Music - any course | Music - any course |
| Philosophy - any course | Philosophy - any course |
| Political Science - any course | Political Science - any course |
| Psychology - any course | Psychology - any course |
| Sociology, Anthropology, and Social Work - any course | Sociology, Anthropology, and Social Work - any course |
| ARCH 301 -Appreciation of Architecture (3) | ARCH 301 -Appreciation of Architecture (3) |
| WOMST 105 -Introduction to Women’s Studies (3) | WOMST 105 -Introduction to Women’s Studies (3) |
| Quantitative Studies (13 credit hours) | Quantitative Studies (13 credit hours) |
| MATH 100 - College Algebra (3) | MATH 100 - College Algebra (3) |
| MATH 220 - Analytic Geometry and Calculus I(4) | MATH 220 - Analytic Geometry and Calculus I (4) |
| Select One | Select One |
| STAT 325 - Introduction to Statistics (3) | STAT 325 - Introduction to Statistics (3) |
| or | or |
| STAT 340 - Biometrics I (3) | STAT 340 - Biometrics I (3) |
| or | or |

STAT 350 - Business and Economic Statistics I (3)

## Select One

STAT 341 - Biometrics II (3)
or
STAT 351 - Business and Economic Statistics II(3)
Biological Sciences (8 credit hours)
BIOL 198 - Principles of Biology (4)
BIOL 455 - General Microbiology (4)
Physical Sciences ( 23 credit hours)
BIOCH 521 - General Biochemistry (3)
and
BIOCH 522 - General Biochemistry Laboratory (2)
CHM 210 - Chemistry I (4)
CHM 230 - Chemistry II (4)
CHM 350 - General Organic Chemistry (3)
and
CHM 351 - General Organic Chemistry Laboratory (2)

PHYS 115 - Descriptive Physics (5)
Core Food Science Courses (30-31 credit hours)
Must have 2.0 GPA average.
FDSCI 302 - Introduction to Food Science (3)
FDSCI 305 - Fundamentals of Food Processing (3)
FDSCI 500 - Food Science Seminar (1)
FDSCI 501 - Food Chemistry (3)
FDSCI 607 - Food Microbiology (4)
FDSCI 690 - Principles of HACCP (2)
FDSCI 727 - Chemical Methods of Food Analysis
(2)

FDSCI 728 - Physical Methods of Food Analysis
(2)

GRSC 540 - Engineering Applications to
Grain/Food Products (3)
GRSC 541 - Engineering Applications to
Grain/Food Products Laboratory (1)
HN 132 - Basic Nutrition (3)

## Select One

FDSCI 695 - Quality Assurance of Food Products
(3)
or
FDSCI 740 - Research and Development of Food Products (4)
Unrestricted Electives (7-10 credit hours)
Professional Electives ( 20 credit hours)
Must have 3 processing electives from at least 2
commodity areas - Dairy, Grain, Meat, or
Fruit/Vegetables.
Other professional electives can be substituted as appropriate.

## Food Science Electives

AGRON 335 - Environmental Quality (3)
ASI 303 - History and Attitudes of Animal Use (3)
ASI 315 - Livestock and Meat Evaluation (3)
ASI 500 - Genetics (3)
ASI 533 - Anatomy and Physiology (4)
ASI 595 - Contemporary Issues in Animal Science and Agriculture (3)
ASI 645 - Poultry Management (3)
ASI 660 - International Study Experience in Animal Science (0-6)

STAT 350 - Business and Economic Statistics I (3)

## Select One

STAT 341 - Biometrics II (3)
or
STAT 351 - Business and Economic Statistics II (3)
Biological Sciences (8 credit hours)
BIOL 198 - Principles of Biology (4)
BIOL 455 - General Microbiology (4)
Physical Sciences (23 credit hours)
BIOCH 521 - General Biochemistry (3)
and
BIOCH 522 - General Biochemistry Laboratory (2)
CHM 210 - Chemistry I (4)
CHM 230 - Chemistry II (4)
CHM 350-General Organic Chemistry (3)
and
CHM 351 - General Organic Chemistry Laboratory
(2)

PHYS 115 - Descriptive Physics (5)
Core Food Science Courses (30-31 credit hours)
Must have 2.0 GPA average.
FDSCI 302 - Introduction to Food Science (3)
FDSCI 305 - Fundamentals of Food Processing (3)
FDSCI 500 - Food Science Seminar (1)
FDSCI 501 - Food Chemistry (3)
FDSCI 607 - Food Microbiology (4)
FDSCI 690 - Principles of HACCP (2)
FDSCI 727 - Chemical Methods of Food Analysis
(2)

FDSCI 728 - Physical Methods of Food Analysis
(2)

GRSC 540 - Engineering Applications to
Grain/Food Products (3)
GRSC 541 - Engineering Applications to
Grain/Food Products Laboratory (1)
HN 132 - Basic Nutrition (3)

## Select One

FDSCI 695 - Quality Assurance of Food Products
(3)
or
FDSCI 740 - Research and Development of Food Products (4)
Unrestricted Electives (7-10 credit hours)
Professional Electives ( 20 credit hours)
Must have 3 processing electives from at least 2
commodity areas - Dairy, Grain, Meat, or
Fruit/Vegetables.
Other professional electives can be substituted as appropriate.

## Food Science Electives

AGRON 335 - Environmental Quality (3)
ASI 303 - History and Attitudes of Animal Use (3)
ASI 315 - Livestock and Meat Evaluation (3)
ASI 500 - Genetics (3)
ASI 533 - Anatomy and Physiology (4)
ASI 595 - Contemporary Issues in Animal Science and Agriculture (3)
ASI 645 - Poultry Management (3)
ASI 660 - International Study Experience in Animal Science (0-6)

BIOL 340 - Structure and Function of the Human Body (8)
BIOL 450 - Modern Genetics (4)
BIOL 541 - Cell Biology (3)

CHM 550 - Organic Chemistry II (3)
CHM 551 - Advanced Organic Laboratory (2)

FDSCI 430 - Food Products Evaluation (3)
FDSCI 603 - Food Science Internship (1-6)
FDSCI 630 - Food Science Problems (Variable)
FDSCI 713 - Rapid Methods and Automation in
Microbiology (2)
FDSCI 730-A Multidisciplinary Overview of Food Safety and Security (2)

FDSCI 791 - Advanced Application of HACCP Principles (3)
GENAG 505 - Comparative Agriculture (1-4)

GNHE 310 - Human Needs (3)

HN 352 - Personal Wellness (3)
HN 400 - Human Nutrition (3)
HN 413 Science of Food (4)
HN 510 - Life Span Nutrition (3)
HN 600-Public Health Nutrition (3)
HN 620 - Nutrient Metabolism (3)
HN 631-Glinical Nutrition I (2)
HN 632 - Clinical Nutrition II (3)
HN 635-Nutrition and Exercise (3)
HN 701 - Sensory Analysis (3)
GRSC 602 Gereal Science (3)
GRSC 651 - Food and Feed Product Protection (4)
GRSC 661 - Qualities of Food and Feed
Ingredients (3)
PHYS 114 - General Physics II-Salina campus (4)
STAT 341 Biometries II (3)

## Communications

Any foreign language
Completion of Advanced Meat Evaluation
AGCOM 400 - Agricultural Business
Communications (3)
AGCOM 590 - New Media Technology (3)
AGCOM 610 - Crisis Communication (3)
COMM 311 - Business and Professional Speaking
(3)

COMM 321 - Public Speaking II (3)

BIOL 330 - Public Health Biology (3)
BIOL 340 - Structure and Function of the Human Body (8)
BIOL 450 - Modern Genetics (4)
BIOL 530 - Pathogenic Microbiology (3)
BIOL 541 - Cell Biology (3)
BIOL 690 - Microbial Physiology \& Metabolism
(2)

CHM 550 - Organic Chemistry II (3)
CHM 551 - Advanced Organic Laboratory (2)
FDSCI 430 - Food Products Evaluation (3)
FDSCI 603 - Food Science Internship (1-6)
FDSCI 630 - Food Science Problems (Variable)
FDSCI 713 - Rapid Methods and Automation in
Microbiology (2)
FDSCI 730-A Multidisciplinary Overview of Food Safety and Security (2)
FDSCI 731 - Food Prot and Def: Essential
Concepts (3)
FDSCI 791 - Advanced Application of HACCP
Principles (3)
GENAG 505 - Comparative Agriculture (1-4)
GENAG 711 - Occupational \& Ag Health (3)
GENAG 721 Occupational \& Ag Safety \& Health
(3)

GNHE 310 - Human Needs (3)
HMD 220 - Environmental Issues in Hospitality
(3)

HMD 341 - Principles of Food Production
Management (3)
HMD 442 - Introduction to Wines (1)
HN 352 - Personal Wellness (3)
HN 400 - Human Nutrition (3)
HN 510 - Life Span Nutrition (3)
HN 620 - Nutrient Metabolism (3)

HN 701 - Sensory Analysis (3)
GRSC 651 - Food and Feed Product Protection (4)
GRSC 661 - Qualities of Food and Feed Ingredients (3)

PHYS 114 - General Physics II-Salina campus (4)

## Communications

Any foreign language
Completion of ASI 495 Advanced Meat Evaluation
AGCOM 400 - Agricultural Business
Communications (3)
AGCOM 590 - New Media Technology (3)
AGCOM 610 - Crisis Communication (3)
COMM 311 - Business and Professional Speaking (3)

COMM 321 - Public Speaking II (3)

COMM 322 - Interpersonal Communication (3)
COMM 326 - Small Group Discussion Methods(3)
COMM 535 - Communication and Leadership (3)
ENGL 300 - Expository Writing III (3)
ENGL 516 - Written Communication for the
Sciences (3)
GENAG 450 Citizenship and Ethies in
Agriculture (3)
MKTG 542-Professional Selling and Sales
Management (3)
MC 110 - Mass Communication in Society (3)
MC 120 - Principles of Advertising (3)
MC 180 - Fundamentals of Public Relations (3)
SOCWK 310 - Topics in Social Work (1-3)

## Technology Electives

ASI 490 - Microcomputer Applications in Animal Sciences and Industry (3)
ATM 160 - Engineered Systems and Technology in Agriculture (3)
ATM 450 - Sensors and Controls for Agricultural and Biological Systems (3)
ATM 455 Engines and Power Transfer (3)
ATM-661 - Watershed Management (3)
BAE 345-Properties of Biological Materials (2)
CIS 101 - Introduction to Computing Systems,
Information Search, and Security (1)
CIS 102 - Introduction to Spreadsheet Applications
(1)

CIS 103 - Introduction to Database Applications(1)
CIS 104 - Introduction to Word Processing
Applications (1)
CIS 105 - Introduction to Computer Programming
(1)

GRSC 540 Engineering Applications to
Grain/Food Products (3)
GRSC 541 Engineering Applications to
Grain/Food Products Laboratory (1)

## Processing Electives

ASI 310 - Poultry and Poultry Product Evaluation
(2)

ASI 350 - Meat Science (3)
ASI 361 - Meat Animal Processing (2)
ASI 370 - Principles of Meat Evaluation (2)
ASI 405 - Fundamentals of Milk Processing (3)
ASI 495 - Advanced Meat Evaluation (2)
ASI 608 - Dairy Foods Processing \& Technology
(3)

ASI 610 - Processed Meat Operations (2)
ASI 640 - Poultry Products Technology (3)
ASI 671 - Meat Selection and Utilization (2)
ASI 777 - Meat Technology (3)
FDSCI 660 - International Study Experience in
Food Science (0-6)
GRSC 101 - Introduction to Grain Science and Industry (3)
GRSC 150 - Principles of Milling (3)
GRSC 405 - Grain Analysis Techniques (2)
GRSC 625 - Flour and Dough Testing (3)

COMM 322 - Interpersonal Communication (3)
COMM 326 - Small Group Discussion Methods (3)
COMM 535 - Communication and Leadership (3)
ENGL 300 - Expository Writing III (3)
ENGL 516 - Written Communication for the Sciences (3)

HMD 443 - Food Writing

MC 110 - Mass Communication in Society (3)
MC 120 - Principles of Advertising (3)
MC 180 - Fundamentals of Public Relations (3)
SOCWK 612 - Fund Comm for Ag \& Food Sci (3)

## Technology Electives

ASI 490 - Microcomputer Applications in Animal Sciences and Industry (3)
ATM 160 - Engineered Systems and Technology in Agriculture (3)
ATM 450 - Sensors and Controls for Agricultural and Biological Systems (3)

CIS 101 - Introduction to Computing Systems, Information Search, and Security (1)
CIS 102 - Introduction to Spreadsheet Applications (1)

CIS 103 - Introduction to Database Applications (1)
CIS 104 - Introduction to Word Processing
Applications (1)
CIS 105 - Introduction to Computer Programming
(1)

## Processing Electives

ASI 310 - Poultry and Poultry Product Evaluation (2)

ASI 350 - Meat Science (3)
ASI 361 - Meat Animal Processing (2)
ASI 370 - Principles of Meat Evaluation (2)
ASI 405 - Fundamentals of Milk Processing (3)
ASI 495 - Advanced Meat Evaluation (2)
ASI 608 - Dairy Foods Processing \& Technology
(3)

ASI 610 - Processed Meat Operations (2)
ASI 640 - Poultry Products Technology (3)
ASI 671 - Meat Selection and Utilization (2)
ASI 777 - Meat Technology (3)
FDSCI 660 - International Study Experience in
Food Science (0-6)
GRSC 101 - Introduction to Grain Science and Industry (3)
GRSC 150 - Principles of Milling (3)
GRSC 405 - Grain Analysis Techniques (2)
GRSC 602 - Cereal Science (3)
GRSC 625 - Flour and Dough Testing (3)

GRSC 635 - Baking Science I (2)
GRSC 636 - Baking Science I Laboratory (2)
GRSC 637 - Baking Science II (3)
GRSC 638 - Baking Science II Laboratory (1)

## Business, Management \& Economics Electives

ACCTG 231 - Accounting for Business Operations (3)

ACCTG 241 - Accounting for Investing and Financing (3)
AGEC 120 - Agricultural Economics and Agribusiness (3)

AGEC 308 - Farm and Ranch Management (3)
AGEC 318 - Food and Agribusiness Management (3)

AGEC 410 - Agricultural Policy (3)
AGEC 415 - The Global Agricultural Economy, Hunger, and Poverty (3)
AGEC 420 - Commodity Futures (3)
AGEC 505 - Agricultural Market Structures (3)
AGEC 515 - Food and Agribusiness Marketing (3)
AGEC 516 - Agricultural Law and Economics (3)
AGEC 520 - Market Fundamentals and
Futures/Options Trading (3)
AGEC 570 - Food Manufacturing, Distribution and Retailing (3)
AGEC 599 - Food and Agribusiness Management Strategies (3)
AGEC 605 - Price Analysis and Forecasting (3)
AGEC 623 - International Agricultural Trade (3)
AGEC 632 - Agribusiness Logistics (3)
AGEC 680 - Risk Management (3)
ECON 120 - Principles of Microeconomics (3)

ECON 520 - Intermediate Microeconomics (3)
FINAN 450 - Principles of Finance (3)
MANGT 300 - Introduction to Total Quality Management (1)
MANGT 366 - Information Technology for Business (3)
MANGT 390 - Business Law I (3)
MANGT 420 - Management Concepts (3)
MANGT 421 - Introduction to Operations
Management-Salina campus (3)
MANGT 530 - Industrial and Labor Relations (3)
MANGT 531 - Human Resources Management (3)
MKTG 400 - Introduction to Marketing (3)
MKTG 450 - Consumer Behavior (3)
MKTG 541 - Retailing (3)
MKTG 542 - Professional Selling and Sales
Management-Salina campus (3)

GRSC 635 - Baking Science I (2)
GRSC 636 - Baking Science I Laboratory (2)
GRSC 637 - Baking Science II (3)
GRSC 638 - Baking Science II Laboratory (1)
HORT 325 - Introduction to Organic Farming (3)
Business, Management \& Economics Electives
ACCTG 231 - Accounting for Business Operations
(3)

ACCTG 241 - Accounting for Investing and
Financing (3)
AGEC 120 - Agricultural Economics and
Agribusiness (3)
AGEC 202 - Small Business Ops (3)
AGEC 220 - Grain and Livestock Marketing 3
AGEC 308 - Farm and Ranch Management (3)
AGEC 318 - Food and Agribusiness Management
(3)

AGEC 410 - Agricultural Policy (3)
AGEC 415 - The Global Agricultural Economy, Hunger, and Poverty (3)
AGEC 420 - Commodity Futures (3)
AGEC 500 - Production Econ (3)
AGEC 505 - Agricultural Market Structures (3)
AGEC 513 - Agriculture Finance (3)
AGEC 515 - Food and Agribusiness Marketing (3)
AGEC 516 - Agricultural Law and Economics (3)
AGEC 520 - Market Fundamentals and
Futures/Options Trading (3)
AGEC 570 - Food Manufacturing, Distribution and Retailing (3)
AGEC 599 - Food and Agribusiness Management Strategies (3)
AGEC 605 - Price Analysis and Forecasting (3)
AGEC 623 - International Agricultural Trade (3)
AGEC 632 - Agribusiness Logistics (3)
AGEC 680 - Risk Management (3)
ECON 120 - Principles of Microeconomics (3)
ECON 510 - Intermediate Macroeconomics (3)
ECON 520 - Intermediate Microeconomics (3)
FINAN 450 - Principles of Finance (3)
MANGT 300 - Introduction to Total Quality
Management (1)
MANGT 366 - Information Technology for
Business (3)
MANGT 390 - Business Law I (3)
MANGT 420 - Management Concepts (3)
MANGT 421 - Introduction to Operations
Management (3)
MANGT 530 - Industrial and Labor Relations (3)
MANGT 531 - Human Resources Management (3)
MKTG 400 - Introduction to Marketing (3)
MKTG 450 - Consumer Behavior (3)
MKTG 541 - Retailing (3)
MKTG 542 - Professional Selling and Sales Management (3)

RATIONALE: We are requesting a curriculum change for the FDSCI Science Option. The proposal is to remove, add, or re categorize courses under different subcategories within the professional electives block. Courses being removed are no longer offered, are no longer taken by FDSCI
students, or have pre-requisites FDSCI students most likely will be unable to meet. Courses added to the professional electives block are newer courses that were not available previously, courses commonly used as variances, or courses with significant relevance to FDSCI program.

IMPACT:
This proposal is expected to have minimal impact on courses taken by FDSCI students. Since removed courses were not being taken and re categorized courses remain in the professional electives block, we expect no change in the status of these courses. For courses added to the curriculum, we would anticipate a potential increase of 0-2 students per year as these courses are part of a larger professional electives block. This proposal has been shared with AGEC, ATM, BAE, BIOL, ECON, HMD, GENAG, and HORT and we have received written (email) approval and support of these changes from Department Heads and/or Teaching Coordinators of their respective programs.

EFFECTIVE DATE: Fall 2012

Bakery Science Minor

FROM:
Grain science majors cannot use courses required in their major as part of a bakery science minor.

GRSC 101 - Introduction to Grain Science and
Industry (3)
GRSC 602 - Cereal Science (3)
GRSC 625 - Flour and Dough Testing (3)
GRSC 635 - Baking Science I (2)
GRSC 636 - Baking Science I Laboratory (2)
GRSC 637 - Baking Science II (3)
GRSC 638 - Baking Science II Laboratory (1)

Total Credits: 17

TO:
Grain science majors cannot use courses required in their major as part of a bakery science minor.

GRSC 101 - Introduction to Grain Science and Industry (3)
GRSC 602 - Cereal Science (3)
*GRSC 625 - Flour and Dough Testing (3)
GRSC 635 - Baking Science I (2)
*GRSC 636 - Baking Science I Laboratory (2)
GRSC 637 - Baking Science II (3)
*GRSC 638 - Baking Science II Laboratory (1)

Total Credits: 17
*Requirements for the Laboratory class taken by distance will require the student to complete the same work as on campus students. This work may be done on campus or at appropriate industry locations.

RATIONALE:
The changes are proposed in order to retain the minor for current KSU students and make it available by distance education to post-baccalaureate graduates of Kansas State University and other accredited Universities. The grain industry as a whole is experiencing a shortage of employees with an adequate skill set or experience. With continued growth, due to new outlets of commodities, the opportunities for employment continue to grow, there is a need to educate new hires and current employees that are not graduates of the Kansas State University's Department of Grain Science \& Industry's current program. A minor in Bakery Science and Management from Kansas State University will allow students to obtain basic knowledge in the baking science field. We have been approached by industry companies, associations and trade groups about making this minor available to non-K-State graduates so that hires without a baking background may learn basic information to help them better understand the industry in which they are working while also allowing hires to get college credit for a minor.

## PROPOSED DELIVERY MECHANISM:

The post baccalaureate K-State students and the non-K-State students taking the minor will be handled through DCE.

## NEED FOR ADDITIONAL RESOURCES:

We already have a Distance Education Director, Brandi Miller; and another person, Brenda Heptig, Undergraduate Student Services Coordinator, who keeps track of minors in the department. There is no additional cost to the department to handle these minors.

The grain industry as a whole is experiencing a shortage of employees with adequate skill sets or experience. With continued growth, due to new outlets of commodities, the opportunities for employment continue to grow. There is a need to educate new hires and current employees that are not graduates of the Kansas State University’s Department of Grain Science \& Industry's current program. A minor in Baking Science and Management from Kansas State University will allow students to obtain basic knowledge in the baking science field. We have been approached by industry companies, associations and trade groups about making this minor available to non-K-State graduates so that hires without a baking background may learn basic information to help them better understand the industry in which they are working while also allowing hires to get college credit for a minor.

## ADMISSION REQUIREMENTS:

A minor in Bakery Science and Management is available to current K-State undergraduate students and post-baccalaureate K-State students. The Department of Grain Science and Industry now wishes to make the minor available to non-K-State graduates of an accredited University subject to the following criteria:

Students must submit a Minor Application Form.

The application must be approved by the Grain Science and Industry Undergraduate Program Committee in order for the student to be eligible to receive the requested minor.

Applicants must have completed all necessary graduate requirements from an accredited 4-year university.

## COMPLETION REQUIREMENTS:

In order to obtain a Minor in Bakery Science and Management, students must:
Complete the required courses with a cumulative GPA of at least 2.0.
Take a minimum of eleven credits from KSU plus a maximum of six transfer credits approved by the department for a total of seventeen hours to complete the minor requirements.

## PROGRAM ASSESSMENT:

This minor is attached to the Baking Science and Management degree program and will be assessed as part of the currently existing Assessment plan for that degree.

IMPACT:
This will allow both current students as well as post-baccalaureate students the opportunity to earn a minor in Baking Science and Management. There is no impact outside of the department of Grain Science \& Industry.

EFFECTIVE DATE: Fall 2012

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FROM: TO:
Grain science majors cannot use courses required in their major as part of a feed science minor.

GRSC 101 - Introduction to Grain Science and Industry

GRSC 210-GAD Flow Sheets for Grain
Processes
GRSC 510 - Feed Technology I
GRSC 655 - Cereal Food Plant Design and Construction

GRSC 690 - Feed Technology II
Total Credits: 17 Industry
$\underline{\text { Or }}$

Grain science majors cannot use courses required in their major as part of a feed science minor.

GRSC 101 - Introduction to Grain Science and
*GRSC 510 - Feed Technology I
*GRSC 690 - Feed Technology II
GRSC 661 - Quality of Feed Ingredients
GRSC 630 - Management Applications in the Grain Processing Industry

GRSC 310 - Materials Handling
Total Credits: 17
*Requirements for the Laboratory class taken by distance will require the student to complete the same work as on campus students. This work may be done on campus or at appropriate industry locations.

RATIONALE: The changes are proposed in order to retain the minor for current KSU students and make it available by distance education to post-baccalaureate graduates of Kansas State University and other accredited Universities. The feed industry as a whole is experiencing a shortage of employees with adequate skill sets or experience. With continued growth, due to new outlets of commodities, the opportunities for employment continue to grow. There is a need to educate new hires and current employees that are not graduates of the Kansas State University’s Department of Grain Science \& Industry's current program. A minor in Feed Science and Management from Kansas State University will allow students to obtain basic knowledge in the feed industry. We have been approached by industry associations and trade groups about making this minor available to non-K-State graduates so that hires without a feed milling background may learn basic information to help them better understand the industry in which they are working while also allowing hires to get college credit for a minor.

## PROPOSED DELIVERY MECHANISM:

The post baccalaureate K-State students and the non-K-State students taking the minor will be handled through DCE.

## NEED FOR ADDITIONAL RESOURCES:

We already have a Distance Education Director, Brandi Miller; and another person, Brenda Heptig, Undergraduate Student Services Coordinator, who
keeps track of minors in the department. There is no additional cost to the department to handle these minors.

## PROJECTED ENROLLMENT/EVIDENCE OF NEED:

The feed industry as a whole is experiencing a shortage of employees with adequate skill sets or experience. With continued growth, due to new outlets of commodities, the opportunities for employment continue to grow. There is a need to educate new hires and current employees that are not graduates of the Kansas State University's Department of Grain Science \& Industry's current program. A minor in Feed Science and Management from Kansas State University will allow students to obtain basic knowledge in the feed industry. We have been approached by industry associations and trade groups about making this minor available to non-K-State graduates so that hires without a feed milling background may learn basic information to help them better understand the industry in which they are working while also allowing hires to get college credit for a minor.

## ADMISSION REQUIREMENTS:

A Minor in Feed Science and Management is available to current K-State undergraduate students and post-baccalaureate K-State graduates. The Department of Grain Science and Industry now wishes to make the minor available to non-K-State graduates of an accredited University subject to the following criteria:

Students must submit a Minor Application Form.
The application must be approved by the Grain Science and Industry Undergraduate Program Committee in order for the student to be eligible to receive the requested minor.

Applicants must have completed all necessary graduate requirements from an accredited university.

## COMPLETION REQUIREMENTS:

In order to obtain a Minor in Feed Science and Management, students must:
Complete the required courses with a cumulative GPA of at least 2.0.
Take at least eleven credits from KSU plus a maximum of six transfer credits approved by the department for a total of seventeen hours to complete the minor requirements.

## PROGRAM ASSESSMENT:

This minor is attached to the Feed Science and Management degree program and will be assessed as part of the currently existing Assessment plan for that degree.

IMPACT: This will allow both current students as well as post-baccalaureate students the opportunity to earn a minor in Feed Science and Management. There is no impact outside of the department of Grain Science \& Industry.

EFFECTIVE DATE: Fall 2012

ADD:


RATIONALE: This minor will align with the Feed Science and Management curriculum. This new minor is proposed to be made available to both on-campus current KSU students and by distance education to post-baccalaureate graduates of Kansas State University and other accredited Universities. The grain industry as a whole is experiencing a shortage of employees with adequate skill sets or experience. With continued growth, due to new outlets of commodities, the opportunities for employment continue to grow. There is a need to educate new hires and current employees that are not graduates of the Kansas State University's Department of Grain Science \& Industry's current program. A minor in Grain Handling Operations from Kansas State University will allow students to obtain basic knowledge in the grain handling field. The grain handling field is an associated part of the feed industry and no such academic program is currently available anywhere. The department has been asked by the Grain Elevator and Processing Association (GEAPS) to create a minor covering basic principles of grain handling and to make it available for new hires.

PROPOSED DELIVERY MECHANISM:
The post baccalaureate K-State students and the non-K-State students taking the minor will be handled through DCE.

## NEED FOR ADDITIONAL RESOURCES:

We already have a Distance Education Director, Brandi Miller; and another person, Brenda Heptig, Undergraduate Student Services Coordinator, who keeps track of minors in the department. There is no additional cost to the department to handle these minors.

PROJECTED ENROLLMENT/EVIDENCE OF NEED:
The grain industry as a whole is experiencing a shortage of employees with adequate skill sets or experience. With continued growth, due to new outlets of commodities, the opportunities for employment continue to grow. There is a need to educate new hires
and current employees that are not graduates of the Kansas State University's Department of Grain Science \& Industry's current program. A minor in Grain Handling Operations from Kansas State University will allow students to obtain basic knowledge in the grain handling field. The grain handling field is an associated part of the feed industry and no such academic program is currently available anywhere. The department has been asked by the Grain Elevator and Processing Association (GEAPS) to create a minor covering basic principles of grain handling and to make it available for new hires.

## ADMISSION REQUIREMENTS:

A Minor in Grain Handling Operations would follow the same procedures as the existing Feed Science minor program. It will be available to current K-State undergraduate students, post-baccalaureate K-State graduates, and non-K-State graduates of an accredited University subject to the following criteria:

Students must submit a Minor Application Form.
The application must be approved by the Grain Science and Industry Undergraduate Program Committee in order for the student to be eligible to receive the requested minor.

Applicants must have completed all necessary graduate requirements from an accredited university

## COMPLETION REQUIREMENTS:

In order to obtain a Minor in Grain Handling Operations, students must:
Complete the required courses with a cumulative GPA of at least 2.0.
Take at least nine credits from KSU plus a maximum of six transfer credits approved by the department for a total of fifteen hours to complete the minor requirements.

## PROGRAM ASSESSMENT:

This minor is attached to the Feed Science and Management degree program and will be assessed as part of the currently existing Assessment plan for that degree.

IMPACT: This will allow both current students as well as post-baccalaureate students the opportunity to earn a minor in Grain Handling Operations. The primary instructor for GENAG 712 was contacted and informed and had no concerns with adding the course to the minor. There is no impact outside of the department of Grain Science \& Industry and no additional cost to the department as the department already has a person designated and serving as the department's Distance Education Coordinator.

EFFECTIVE DATE: Fall 2012

FROM:

## TO:




RATIONALE: The proposed curriculum changes reflect 1) Renumbering the RRES 200 series (outdoor skills" courses (7 in total) to allow greater ease in locating these courses by students, advisers, the college and university enrollment teams. 2) Moving, at the request of outdoor industry leaders, the accounting 241/Accounting for Investing and Financing (3 hours) from a "suggested elective" course to a "required" course. This will allow our Wildlife and Outdoor Enterprise Management students to complete their "Business Minor" as a formal component of the WOEM Degree Program. 3) Dropping HRIMD (HMD) 230 "Issues in Tourism" to allow adding the above accounting course and reducing program "free electives" by only one hour (11 down from 12) of the required courses initially identified for the Wildlife and Outdoor Enterprise Management B.S. Degree Program. The "Issues in Tourism" course can be eliminated without significant impact on our students’ ability to be successful professionals upon graduation.

IMPACT:
The Accounting 241 "Accounting for Investing and Financing" will not see a change in enrollment; all Wildlife and Outdoor Enterprise Management students have already been taking the course as a "suggested elective" at the advice of their major professor. The Department Head of Accounting (Richard Ott) was contacted and responded indicating approval of the change. 2) Dropping (HRIMD/HMD 230 "Issues in Tourism" from the Wildlife and Outdoor Enterprise Management Degree Program will mean a decrease in enrollment in this course by some 30 students a year. The Department Head of Hospitality Management and Dietetic (Jeannie Sneed) was contacted and responded indicating that they understand the need to change the curriculum; the department did not object to the change.

EFFECTIVE DATE: Fall 2012

## COLLEGE OF ARCHITECTURE, PLANNING AND DESIGN (11-18-11)

## COURSE CHANGES

## Department of Architecture

(Master of Architecture Program)
Addition of New Courses
Effective Date: Fall 2012
Impact on Other Units: None

Course: ARCH 274 Digital Architecture I

Credits:
Catalog Description:
(1)

This course will introduce students to digital management concepts, basic architectural digital representation, 3-dimensional computer modeling, raster, and vector graphics with an emphasis on conceptual development.
Prerequisites: Second year standing or higher, or permission of the instructor
When Offered: Fall, Spring, Summer
UGE Course: No
K-State 8: None

Course: ARCH 373 Digital Architecture II
Credits:
Catalog Description:

Prerequisites:
When Offered:
UGE Course:
K-State 8:

Course:
Credits:
Catalog Description:

Prerequisites:
When Offered:
UGE Course:
K-State 8:
(1)

Students will be introduced to Building Information Modeling (BIM) during the course, with emphasis on BIM methods for conceptual development, the design and representation of building assemblies and systems, and architectural documentation. Second year standing or higher, or permission of the instructor Fall, Spring, Summer
No
None

ARCH 374 Digital Architecture III
(1)

Methods for digital 3-dimensional visualization, including rendering, animation, compositing and analysis will be introduced during this course.
ARCH 274, ARCH 373, or permission of the instructor
Fall, Spring, Summer No
Aesthetic Experience and Interpretive Understanding
Empirical and Quantitative Reasoning

Computing is currently addressed by one single required 3 credit hour course $-A R C H$ 472 - which puts a significant burden on the students by having to become proficient with a very broad set of technologies and skill-sets. The new courses spread out the course content over a longer period of time. Three new 1 credit hour courses are being created to take the place of ARCH 472. (ARCH 472 is being dropped through the expedited process effective Fall 2014)

Dean of Architecture, Planning and Design
(Environmental Design Studies Program)
Addition of New Courses
Effective Date: Fall 2012
Impact on Other Units: None

| Course: | ENVD 020 University Honors Program |
| :--- | :--- |
| Catalog Description: | All students participating in the University Honors Program and who are enrolled in the <br> College of Architecture, Planning \& Design must enroll each semester |
| Credits: | (0) |
| When Offered: | Fall, Spring |
| K-State 8: | None |
| Rationale: | ENVD 020 is not a regular course (thus, no syllabus and zero credit hours), but rather <br>  <br>  <br>  <br>  <br>  <br>  <br> a bookkeeping method that allows the University Honors Program to track its students. <br> All other colleges have then 020 designation for this similar purpose. |

Course: ENVD 189 Introduction to University Honors Program
Catalog Description: Introduction to the University Honors Program. (1) I, II. Directions and goals for the honors program.
Credits:
When Offered:
K-State 8:
Rationale:
(1)

Fall, Spring
None
Other colleges currently use the 189 course number and the prefix is specific to their college. Establishment of this course will be consistent with the other colleges.

## Department of Landscape Architecture/Regional and Community Planning (Master of Regional \& Community Planning Program)

Addition of New Courses
Effective Date: Fall 2012
Impact on Other Units: None

| Course: | PLAN 010 Planning Field Trip |
| :---: | :---: |
| Catalog Description: | Field trip requirement: each spring students will be required to participate in a 4- to 5day field trip. |
| Credits: | (0) |
| Requisites: | None |
| When Offered: | Spring |
| K-State 8: | None |
| Rationale: | The Planning Field Trip, offered in conjunction with the Landscape Architecture Field Trip provides students with a structured travel experience to a city demonstrating best practices in city planning. |
| Course: | PLAN 316 Planning Principles Seminar |
| Catalog Description: | Discussion of the principles and process of regional and community planning as practiced by the profession. The tools, skills and knowledge of the planning professions are presented in a focused introduction to the profession. |
| Credits: | 2) |
| Corequisites: | PLAN 315, admission to the Regional and Community Planning program |
| When Offered: | Fall |


| K-State 8: | None |
| :---: | :---: |
| Rationale: | PLAN 316 supplements the content of PLAN 315, Introduction to City Planning (a large lecture class delivered to undergraduate students from a variety of majors), to provide Regional and Community Planning majors a focused introduction to the discipline. |
| Course: | PLAN 415 World Cities |
| Catalog Description: | This course introduces undergraduates from a variety of disciplines to some of the major urban areas in the world, how and why they developed, what makes them unique, what it might be like to live there, and what issues they may face in achieving a sustainable future. This course gives students a way of thinking about cities in a global context that highlights both their differences and their similarities. Through lectures, text and other multi-media formats, students explore some of the main opportunities and challenges facing the inhabitants of large cities in today's world. |
| Credits: | (3) |
| Requisites: | None |
| When Offered: | Spring |
| K-State 8: | Global Issues \& Perspectives, Social Sciences |
| Rationale: | PLAN 415 addresses the need for students to have a global perspective of the world cities in which they will live and work. This will be of importance to students across the university and must be addressed to meet Planning Accreditation Board standard. |
| Course: | PLAN 444 Internship Planning Seminar |
| Catalog Description: | Exploration and preparation for a planning internship. |
| Credits: | (1) |
| Requisites: | PLAN 315, PLAN 316 |
| When Offered: | Fall |
| K-State 8: | None |
| Rationale: | PLAN 444 provides skills and knowledge necessary for students to obtain an internship in planning practice and to prepare for professional practice. |
| Course: | PLAN 510 Tech Module |
| Catalog Description: | Introductory theory, methods, and application of technological skills and support of concurrent required courses. Emphasis is on data collection, management, mapping and analysis. |
| Credits: | (1) |
| Corequisites: | LAR 420 |
| When Offered: | Fall |
| K-State 8: | None |
| Rationale: | PLAN 510 provides technical skills and knowledge necessary to complete LAR 420, a course completed in meeting Planning Accreditation Board criteria. |

## CURRICULUM CHANGES

## Department of Landscape Architecture/Regional and Community Planning (Community Planning Minor) <br> Effective Date: Fall 2012 <br> Impact on Other Units: None <br> Rationale: <br> Changes to the Minor in Community Development curriculum are a result of: 1- This curriculum reflects the proposed course changes for the Department of Landscape Architecture/Regional and Community Planning.

FROM:
(Current list of courses for the curriculum, curriculum description, and admission criteria.)

TO: (Proposed list of courses for the curriculum, curriculum description, and admission criteria.)

| The minor in community planning is for students who wish to expand their knowledge of the processes of community planning and development. <br> NOTE: The minor in community planning is not available to students enrolled in the five-year MARCH, MLA, MIAPD, or MRCP programs in the College of Architecture, Planning and Design. | The minor in community planning is for students who wish to expand their knowledge of the processes of community planning and development. To earn the minor in community development, students are required to complete 15 credit hours of planning courses with grades of $C$ or better. |
| :---: | :---: |
| Program requirements <br> Core requirements <br> Successful completion of the following planning course with a <br> grade of $C$ or better: <br> PLAN 315 - Introduction to City Planning Credits: (3) | Program requirements <br> Core requirements <br> Successful completion of the following planning courses: <br> PLAN 315 - Introduction to City Planning Credits: (3) <br> PLAN 415 - World Cities Credits: (3) |
| Planning electives <br> Successful completion of 12 credit hours of the following planning courses (unless an external elective option is elected <br> by the student) with grades of $C$ or better: <br> PLAN 630-Computer Applications in Planning and Design Credits: (1-3) <br> PLAN-633-Computer Applications in Planning IIICredits: (1) <br> PLAN 650 - Housing and Development Programs Credits: (3) <br> PLAN 655-Land Development Planning Credits: (3) <br> PLAN 660 - Community Development Planning Credits: (3) <br> PLAN 661 -Community Development Workshop Credits: (Variable) <br> PLAN 699-Special Studies in Planning Credits: ( $1-3$ ) <br> PLAN 616 -Seminar in Planning Credits: ( $1-3$ ) <br> PLAN 717 - Seminar in Grant Preparation Credits: (2) <br> PLAN 721 - Infrastructure Planning and Financing Credits: (3) <br> PLAN 731 - Solid Waste Planning and Management Credits: (1-3) <br> PLAN 740 -Small Community and Rural Area Planning Credits: (3) <br> PLAN 745 - Urban Design and Preservation Planning Theory Credits: (3) <br> PLAN 746 - Urban Design and Preservation Studio Credits: (4) <br> PLAN 747 - Urban Design and Preservation Field Study Credits: (1-3) <br> PLAN 748 -Urban Visural Analysis-Credits: (3) <br> PLAN 752 - Physical Processes of Plan Implementation Credits: (3) <br> PLAN 753 - Planning Law Credits: (3) <br> PLAN 765 -Growth Management Credits: (3) | Additional requirements Successful completion of $\underline{9}$ credit hours of planning (PLAN) electives. |
| Externalelectives <br> Successful completion of 3 credit hours from the following list of courses is considered as an acceptable substitute for one of the courses listed above in the planning elective area: <br> AGEC 525-Natural Resource and Environmental Economics Credits: (3) <br> AGEC 610 -Current Agriculture and Natural Resource Issues Credits: (3) <br> ARCH 703 - Environmental Aesthetics Credits: (3) <br> ARCH 720 - Environment and Behavior Credits: (3) <br> ARCH 730 - Environment and Aging Credits: (3) <br> BIOL 529 - Fundamentals of Ecology Credits: (3) <br> GE 572 - Highway Engineering, Planning and Management Credits: (3) <br> CE 786 - Land Development for Civil Engineers and Planners Credits: (3) <br> ECON 527 - Environmental Economics Credits: (3) <br> ECON 555-Urban and Regional Economics-Credits: (3) <br> FINAN 552-Real Estate-Credits: (3) <br> GEOG-450-Geography of Economic Behavior-Credits: (3) <br> GEOG 508-Geographic Information Systems I Credits: (4) <br> GEOG 705 - Remote Sensing of the Environment Credits: (3) <br> GEOG 708-Geographic Information Systems II Credits: (3) <br> GEOG 720-Geography of Land Use Credits: (3) <br> GEOG 750 - Urban Geography Credits: (3) <br> GEOG 760 - Human Impact on the Environment Credits: (3) <br> LAR 500 - Site Planning and Design Credits: (3) |  |


| LAR 635-Golf Course Planning and Design Credits: (1-4) <br> LAR 646 - Community Planning and Design Credits: (5) <br> LAR 704 - Environmental Landscape Planning and Design Credits: (5) <br> LAR 735 - Advanced Golf Course Planning and Design Credits: (1-4) <br> LAR 759 -Landscape Resource Evaluation Credits: (3) <br> POLSC 618 - Urban Politics Credits: (3) <br> POLSC 620 - State and Local Government Credits: (3) <br> SOCIO 432 - Community Organization and Leadership Credits: (3) <br> SOCIO 531 - Urban Sociology Credits: (3) <br> SOCIO 533 - Rural Society Credits: (3) |  |
| :---: | :---: |
| Criteria for admission Undergraduate students may apply for admission to the minor by contacting the departmental offices and completing an enrollment form at least one year prior to graduation. Students will be-assigned an academic advisor for the minor program from faculty within the program in regional and community planning. While the elective options listed above are generic to the minors program, other acceptable substitutes may be negotiated based on interest and background. | Criteria for admission Students may apply for admission to the minor by contacting the LARCP Academic Advisor. Admission must be completed prior to enrollment in the 9 credit hours of planning electives to receive certification of the minor. |
| Completion requirements <br> Only courses with grades of $C$ or better count toward the minor. Students must earn a cumulative 3.0 GPA (on a 4.0 scale) in the minor course work to successfully complete the minor. <br> Ungraded course work taken for pass/fail does not qualify for inclusion in the minors program. The Department of Landscape Architecture and Regional and-Community Planning will award a certificate in community planning to those students who successfully complete the minor program upon graduation from K-State- |  |
| For more information <br> Department of Landscape Architecture/Regional and Community Planning, College of Architecture, Planning and Design 785-532-5961. <br> Specific questions may be directed to the director of the graduate program in regional and community planning. | For more information Department of Landscape Architecture/Regional and Community Planning, College of Architecture, Planning and Design 785-532-5961. |

## COURSE CHANGES

Department of Aviation


#### Abstract

FROM: AVM 485. Helicopter Maintenance. (7) Summer. An advanced study of the major components of rotary-winged aircraft to include airframe, rotor, transmission and engine components of turbine and reciprocating engine helicopters. Also includes a detailed study and validation of all Federal Aviation Administration required documentation related to maintenance, historical records, and inspection of components. Three hours lecture and 12 hours lab per week. Pr.: AVM 111, 121, 131, 141, 151 or consent of instructor.


TO: $\quad$ AVT 485. Helicopter Maintenance. (3) Summer. An advanced study of the major components of rotary-winged aircraft to include airframe, rotor, transmission and engine components of turbine and reciprocating engine helicopters. Also includes a detailed study and validation of all Federal Aviation Administration required documentation related to maintenance, historical records, and inspection of components. 2 hours lecture and 4 hours lab per week. Pr.: AVM 111, 121, 131, 141, 151 or consent of instructor. K-State 8: Ethical Reasoning and Responsibility.

RATIONALE: The purpose of this change is to readjust prerequisites and credit hours. Changing this course to AVT allows for the restructuring of aviation options and electives.

IMPACT: No impact on any other department.
EFFECTIVE DATE: Fall 2012

ADD:
AVT 389. Problems in Aviation. (1-18) Fall, Spring, Summer. Provides the student an opportunity to apply their aviation education to the improvement of skills previously learned as designated by the instructor. K-State 8: None.

RATIONALE: This course adds flexibility to the curriculum by allowing the students to study emerging topic areas.

IMPACT: No impact on any other department.
EFFECTIVE DATE: Fall 2012

ADD:
PPIL 219. Single Engine Seaplane Transition. (1) Spring. Instruction and flight training necessary to add the seaplane rating to the commercial pilot certificate. Course requires a one-week trip to a specified contract training location. One hour lecture a week. Pr.: PPIL 213. K-State 8: None.

RATIONALE: This course allows the commercial pilot to add the airplane single engine seaplane rating to the commercial pilot certificate.

IMPACT: No impact on any other department.

| ADD: | PPIL 315. Certified Flight Instructor Glider. (1) Summer. Instruction techniques, <br> practices, and procedures necessary to provide skill in organizing and presenting <br> lessons. Prepares the student for the FAA Certified Instructor Knowledge Test Glider. <br> One hour lecture a week. Pr.: PPIL 314. K-State 8: None. |
| :--- | :--- |
| RATIONALE: $\quad$This course allows students to enhance their aeronautical knowledge and skill by <br> providing the ground instruction necessary to pass the FAA Certified Flight Instructor- <br> glider airman knowledge exam add-on rating to the FAA flight instructor airplane <br> certificate. |  |
| IMPACT: | No impact on any other department. |

EFFECTIVE DATE: Fall 2012

ADD:
PPIL 316. Certified Flight Instructor Glider Flight Lab. (1) Summer. Provides the opportunity to apply and demonstrate concepts learned in the flight instructor glider ground instruction course (PPIL 315). Requires demonstration of flight maneuvers and the ability to recognize common errors in student performance. One hour lab a week. Pr.: PPIL 231. Coreq.: PPIL 315. K-State 8: None.

RATIONALE: $\quad$ This course provides the flight training to pass the FAA practical test for the Certified Flight Instructor- glider add-on rating to the FAA flight instructor airplane certificate.

IMPACT: No impact on any other department.
EFFECTIVE DATE: Fall 2012

| ADD: | AVT 470 Unmanned Aerial Systems Operations. (3) Fall. Allows the UAS major to <br> become familiar with the latest UAS technologies and their associated systems <br> integration architectures as well as deployment procedures. Topics include: Current <br> Federal Aviation Administration policies and regulations affecting UAS, current and <br> emerging technologies, as well as emerging and future technologies. This course is <br> primarily laboratory based. Pr.: AVT 460. K-State 8: None. |
| :--- | :--- |
| RATIONALE: | This course is needed in order to provide an opportunity for UAS students to keep <br> abreast of the latest UAS industry air vehicles and to allow these students to gain <br> experience with their respective systems integration, launch, cruise, and vehicle <br> recovery procedures. |
| IMPACT: | No impact on any other department. |

EFFECTIVE DATE: Fall 2012

## CURRICULUM CHANGES Unmanned Aerial Systems Option (BATN-US) 127 Credit Hours

## Fall ${ }^{\text {st }}$ Semester - $\mathbf{1 7}$ credit hours

| ENGL 100 | Expository Writing I | 3 |
| :--- | :--- | :--- |
| MATH 100 | College Algebra | 3 |
| PHEO 105 | Introduction to Critical Thinking | 3 |
| PPH 100 | Introduction to Aviation | 3 |
| PPIL 111 | Private Pilot | 4 |
| PPIL 113 | Private Pilot Flight Lab | 1 |

Spring $2^{\text {nd }}$ Semester - $\mathbf{1 7}$ credit hours
COMM 106 Public Speaking I
MATH $150 \quad$ Plane Trigonometry
PPIL $112 \quad$ Professional Instrument Pilot
PPIL 114 Professional Instrument Plt Flt Lab I PPIL 270 Introduction to Unmanned Aerial Systems
PPI 342 Aviation Meteorology
PP\# 100 Introduction to Aviation 3
PPIL 111 Private Pilot 4
PPIL $113 \quad$ Private Pilot Flight Lab

Fall $3^{\text {rd }}$ Semester - $\mathbf{1 6}$ credit hours

| AVM 151 | Aviation Maintenance Fundamentals | 3 |
| :--- | :--- | :--- |
| ENGL 200 | Expository Writing II | 3 |
| MATH 205 | General Calculus and Linear Algebra | 3 |
| PHYS 113 | General Physics I | 4 |
| PPH 360 | Unmanned Aerial Systems I | 3 |


| Spring $4^{\text {th }}$ | Semester - $\mathbf{1 6}$ credit hours |  |
| :--- | :--- | ---: |
| ECET 100 | Basic Electronics | 4 |
| ECON 110 | Principles of Macreconomics | 3 |
| ENGL 302 | Technical Writing | 3 |
| PPIL 386 | Aerodynamics | 3 |
| PPIL 415 | Human Factors in Aviation | 3 |

Fall 5 ${ }^{\text {th }}$ Semester - 15 credit hours

| AVM 241 | Navigational Aids and Commenication |  |
| :--- | :--- | ---: |
|  | Systems | 3 |
| AVT 327 | Avionics Repair | 3 |
| ECET 101 | Direct Current Cireuits | 3 |
| PSYCH 110 | General Psychology | 3 |
|  | Computer Elective | 3 |


| Spring 6 | th | Semester - $\mathbf{1 6}$ credit hours |
| :--- | :--- | ---: |
| BUS 315 | Supervisory Management | 3 |
| CMST 250 | Networking I | 3 |
| ECET 110 | Semiconductor Electronics | 4 |
| MKTG 400 | Introduction to Marketing | 3 |
| PPIL 460 | Unmanned Aerial Systems II | 3 |

Fall 7 ${ }^{\text {th }}$ Semester - 15 credit hours

| STAT 325 | Introduction to Statistics | 3 |
| :--- | :--- | :--- |
|  | *Aviation Elective | 3 |
|  | Aviation/Computer Elective | 3 |
|  | *Aviation/Electronics Elective | 3 |
|  | *Humanities/Social Science/Business |  |
|  | Elective | 3 |


| Spring $8^{\text {th }}$ | Semester $-\mathbf{1 4}$ credit hours |  |
| :--- | :--- | ---: |
| AVT 497 | Senior Project | 3 |
| GEOG 508 | Geographic InformationSystems | 3 |
| PPH 450 | Aviation Safety Management | 3 |
|  | *Humanities/Social Science Elective | 3 |
|  | Natural Science Elective | 3 |

[^0]Proposed Unmanned Aerial Systems Option
(BATN-US)
127 Credit Hours

Fall $1^{\text {st }}$ Semester - 18 credit hours

| AVT 100 | Introduction to Aviation | 3 |
| :--- | :--- | ---: |
| ECET 100 | Basic Electronics | 4 |
| ENGL 100 | Expository Writing I | 3 |
| MATH 100 | College Algebra | 3 |
| PPIL 111 | Private Pilot | 4 |
| PPIL 113 | Private Pilot Flight Lab | 1 |

Spring $2^{\text {nd }}$ Semester - $\mathbf{1 7}$ credit hours

| AVT 242 | Aviation Meteorology | 4 |
| :--- | :--- | :--- |
| AVT 270 | Introduction to Unmanned Aerial Systems | 3 |
| COMM 106 | Public Speaking I | 3 |
| MATH 150 | Plane Trigonometry | 3 |
| PPIL 112 | Professional Instrument Pilot | 3 |
| PPIL 114 | Professional Instrument Plt Flt Lab I | 1 |

Fall ${ }^{\text {rd }}$ Semester - $\mathbf{1 6}$ credit hours

| AVT 317 | Composites I | 3 |
| :--- | :--- | :--- |
| AVT 370 | Unmanned Aerial Systems I | 3 |
| ENGL 200 | Expository Writing II | 3 |
| MATH 205 | General Calculus and Linear Algebra | 3 |
| PHYS 113 | General Physics I | 4 |

Spring $4^{\text {th }}$ Semester $\mathbf{- 1 5}$ credit hours

| AVT 340 | Human Factors in Aviation | 3 |
| :--- | :--- | :--- |
| AVT 386 | Aerodynamics | 3 |
| ECET 101 | Direct Current Circuits | 3 |
| ENGL 302 | Technical Writing | 3 |
| PHILO 105 | Introduction to Critical Thinking | 3 |

Fall 5 ${ }^{\text {th }}$ Semester - 15 credit hours

| AVM 242 | Navigational Aids and Communication |  |
| :--- | :--- | ---: |
|  | Systems for Avionics | 3 |
| AVT 327 | Avionics Repair | 3 |
| ECON 110 | Principles of Macroeconomics | 3 |
| PSYCH 110 | General Psychology | 3 |
|  | Computer Elective | 3 |

Spring $\mathbf{6}^{\text {th }}$ Semester $\mathbf{- 1 6}$ credit hours
AVT $460 \quad$ Unmanned Aerial Systems II 3
BUS 315 Supervisory Management 3
CMST 250 Networking I 3
ECET 110 Semiconductor Electronics 4
MKTG 400 Introduction to Marketing 3
Fall $7^{\text {th }}$ Semester - 15 credit hours

| AVT 470 | Unmanned Aerial Systems Operations | 3 |
| :--- | :--- | :--- |
| STAT 325 | Introduction to Statistics | 3 |
|  | Aviation/Computer Elective | 3 |
|  | *Aviation/Electronics Elective | 3 |
|  | *Humanities/Social Science/Business |  |
|  | Elective | 3 |

Spring $8^{\text {th }}$ Semester $\mathbf{- 1 5}$ credit hours

| AVT 450 | Aviation Safety Management | 3 |
| :--- | :--- | :--- |
| AVT 497 | Senior Project | 3 |
|  | *Aviation Elective | 3 |
|  | *Humanities/Social Science Elective | 3 |
|  | Natural Science Elective | 3 |

*Marked electives must be upper division courses, 300 and above.

RATIONALE: The purpose of these changes is to reflect the AVT course numbering changes, readjust the courses to the correct semesters, and add in a Senior UAS Operations Course. AVM 151 was removed to add AVT 317.

IMPACT:
EFFECTIVE DATE:

No impact on any other department.
Fall 2012

## COLLEGE OF BUSINESS ADMINISTRATION (APPROVED 12-7-11)

Department of Marketing

## Change From:

## MKTG 542 Professional Selling and Sales Management

Credits: (3)
Focuses on interpersonal communications between buyers and sellers, both oral and written. The mechanics and intricacies of personal sales presentations, which will be developed through practice. Management of the sales force in non-retail settings including hiring, training, organizing, motivating, supervising, and evaluating sales representatives and techniques of sales forecasting.

## Requisites

Prerequisite: MKTG 400.

## When Offered

Fall, Spring
UGE course
No
K-State 8
Social Sciences

## Change to:

## Mktg 542 Professional Selling

Credits: (3)
Focuses on interpersonal communications between buyers and sellers, both oral and written. The mechanics and intricacies of personal sales presentations, which will be developed through practice.

## Requisites

Prerequisite: MKTG 400.

## When Offered

Fall, Spring
UGE course
No

## K-State 8

Social Sciences

## Rationale:

The Department wishes to divide the content of this course into two courses. This course (MKTG 542) will focus on interpersonal communication between buyers and sellers in the sales process. The other course is a new course being added named Sales Management (MKTG 560). This new course will focus on the management of a sales force, to include hiring, training, organizing, motivating, supervising, and evaluating
sales representatives and techniques of sales forecasting. Currently, the amount of course material is too great to be able to adequately cover in a single course.

## Effective Date:

Fall 2012
NON - EXPEDITED COURSE CHANGES - COURSES NUMBERED 000-599

## Add:

## MKTG 560 Sales Management

Credits: (3)
Management of the sales force in non-retail settings including hiring, training, organizing, motivating, supervising, and evaluating sales representatives and techniques of sales forecasting.

## Requisites

Pre-Requisite: MKTG 542

## When Offered

## Spring

## K-State 8 Course

Social Sciences - this course will explore ways in which individuals and groups influence one another in a sales context.

## Rationale:

This new course in sales management is needed to expand course offerings in sales in support of the Marketing Department's Relational Selling Initiative. This new course (MKTG 560) will be one of a series of three sales courses offered (the other two courses being MKTG 570 - Advanced Selling (a new course) and MKTG 542 - Professional Selling (an existing course to be modified)). Currently, MKTG 542 is titled Professional Selling and Sales Management. Our intent is to move the sales management content out of MKTG 542, increase the scope of the material and offer that content in this new sales management course (MKTG 560).

## Impact On Other Units:

None

## Effective Date:

Fall 2012
Add:

## MKTG 570 Advanced Selling

Credits: (3)
This course will provide students the opportunity to enhance their personal selling skills through advanced instruction and skill development making extensive use of role playing
and sales role play competitions. Content will include building relationships, negotiating, adaptive selling and understanding communication styles in a sales context.

## Requisites

Pre-Requisite: MKTG 542 and Instructor Permission

## When Offered

Spring

## K-State 8 Course

Social Sciences- this course will explore ways in which individuals and groups influence one another in a sales context.

## Rationale:

This new course in sales management is needed to expand course offerings in sales in support of the Marketing Department's Relational Selling Initiative. This new course (MKTG 570) will be one of a series of three sales courses offered (the other two courses being MKTG 560 - Sales Management - (a new course) and MKTG 542 - Professional Selling (an existing course to be modified)).

## Impact On Other Units:

None

## Effective Date:

Fall 2012
Drop:
The Agribusiness emphasis/option within the Marketing major

## Rationale:

We want to discontinue the Agribusiness emphasis/option within the Marketing major since this option/sub-plan is not being utilized by students.

## Impact On Other Units:

This could impact the Department of Agricultural Economics within the College of Agriculture. Dr. David Lambert, Department Head of Agricultural Economics has been notified and has given approval.

## Effective Date:

Fall 2012

## Agribusiness Option (127 credit hours)

Marketing majors interested in agricultere may take an option in agribusiness. Students choosing the agribusiness option complete all major field requirements for the marketing major plus hours in agribusiness.

## Requirements

BAPP program ( 55 credit hours)

## Gomplete the BAPP program with the following exception.

Students should take the courses listed below as their K-State 8 Natural and Physical Sciences with accompanying laboratory requirement and KState 8 elective requirement (will total 8 credit hours instead of 7):

- BIOL 198 - Principles of Biology Credits: (4)
- and
- CHM 110-General Chemistry Credits: (3)
- and
- GHM 111-GeneralChemistry Laboratory Gredits: (1)


## Business core courses (51 credit hours)

- AGGTG 231 Accounting for Business Operations Gredits: (3)
- ACCTG 241 - Accounting for Investing and Financing Credits: (3)
- AGEG 318 -Food and Agribusiness Management Gredits: (3)
- AGEG 500-Production Ecomomies Gredits: (3)
- AGEC 505-Agricultural Market Structures Credits: (3)
- FINAN 450 - Principles of Finance Credits: (3)
- GENBA 110 - Business Foundations Credits: (3)
- GENBA 166-Business Information Technology Skills Proficiency Credits: (0)
- MANGT 420-Management Concepts Credits: (3)
- MANGT 421 - Introduction to Operations Management Credits: (3)
- MANGT 595-Business Strategy Gredits: (3)
- MANGT 596-Business, Government, and Society Gredits: (3)
- MKTG 400 Introduction to Marketing Gredits: (3)
- MKTG 450-Consumer Behavior Credits: (3)
- MKTG 542 - Professional Selling and Sales Management Credits: (3)
-     - MKTG 544 Intermational Marketing Gredits: (3)
- MKTG 642 Marketing Research Credits: (3)
- MKTG 690-Marketing Management Credits: (3)

Economics electives ( 3 credit hours)

## Choose one from the following:

```
- ECON 507 - The Japanese Economy Credits: (3)
- EGON 510 Intermediate Macroeconomics Credits: (3)
- ECON 520 Intermediate Microeconomics Credits: (3)
- ECON 521 - Intermediate Microeconomic Theory Credits: (3)
0-ECON 523 - Human Resource Economics Credits: (3)
- ECON 527-Environmental Economics Credits: (3)
- EGON 530 Money and Banking Gredits: (3)
- ECON 536-Comparative Economics Credits: (3)
- ECON 540 - Managerial Economics Credits: (3)
e-ECON 555-Urban and Regional Economics Credits: (3)
- -EGON 620 Labor Economies Gredits: (3)
- EGON 630 Introduction to Ecomometries Gredits: (3)
- ECON 631 - Principles of Transportation Credits: (3)
- EEON 633- Public Finamce Gredits: (3)
0-ECON640 Industrial Organizatiom and Public Policy Gredits: (3)
- EGON681 Intermational Economies Credits: (3)
- EGON 682 - Development Economics Credits: (3)
- ECON 690 - Monetary, Credit, and Fiscal Policies Credits: (3)
```

Fifteen hours must be taken from the following three groups of electives:

## Agribusiness electives (6 credit hours)

## Choose 6 credit hours from the following:

- AGEC 410-Agricultural Policy Credits: (3)
- AGEG 415-TheGlobal Agricultural Economy, Hunger, and Poverty Credits: (3)
- AGEC 420 Commodity Futwres Credits: (3)
- AGEC 513-Agricultural Finance Credits: (3)
- AGEC 515-Food and Agribusiness Marketing Credits: (3)
- AGEG 516-Agricultural Law and Economics Credits: (3)
- LGEC 520 - Market Fundamentals and Futures/Options Trading Gredits: (3)
- AGEC 525 - Natural Resource and Environmental Economics Credits: (3)
- AGEC 598 - Farm Management Strategies Credits: (3)
- AGEG 599 Food and Agribusiness Management Strategies Gredits: (3)
- AGEG605-Price Analysis and Forecasting Credits: (3)
- $\quad$ AGEC 610-Current Agriculture and Natural Resource Policy Issues Credits: (3)
- AGEC 623-International Agrieulteral Trade Gredits: (3)
- AGEG 632 Agribusiness Logistics Credits: (3)
- $\quad$ AGEC 680-Risk Management Credits: (3)

Agricultural sciences and/or product technology electives (6-8 credit hours)

Ghoose 6-8-credit hours from the following:


## Non-Expedited UNDERGRADUATE Curriculum Change

## Department of Human Nutrition

## Nutritional Sciences

| CHANGE FROM: | CHANGE TO: |
| :---: | :---: |
| Human Nutrition (B.S.)-Nutritional Sciences | Human Nutrition (B.S.)-Nutritional Sciences |
| General requirements (61-62 credit hours) | General requirements (61-62 credit hours) |
| Communications (11-12 credit hours) | Communications (11-12 credit hours) |
| ENGL 100 - Expository Writing I Credits: (3) | ENGL 100 - Expository Writing I Credits: (3) |
| ENGL 200 - Expository Writing II Credits: (3) | ENGL 200 - Expository Writing II Credits: (3) |
| ENGL 516 - Written Communication for the Sciences | ENGL 516 - Written Communication for the Sciences |
| Credits: (3) | Credits: (3) |
| One of the following courses | One of the following courses |
| COMM 105 - Public Speaking IA Credits: (2) | COMM 105 - Public Speaking IA Credits: (2) |
| or | or |
| COMM 106 - Public Speaking I Credits: (3) | COMM 106 - Public Speaking I Credits: (3) |
| Social Science (9 credit hours) | Social Science (9 credit hours) |
| ECON 110 - Principles of Macroeconomics Credits: (3) | ECON 110 - Principles of Macroeconomics Credits: (3) |
| PSYCH 110 - General Psychology Credits: (3) | PSYCH 110 - General Psychology Credits: (3) |
| SOCIO 211 - Introduction to Sociology Credits: (3) | SOCIO 211 - Introduction to Sociology Credits: (3) |
| Humanities electives (6 credit hours) | Humanities electives (6 credit hours) |
| Natural Sciences (28 credit hours) | Natural Sciences (28 credit hours) |
| Biological Sciences (20 credit hours) | Biological Sciences (20 credit hours) |
| BIOL 198 - Principles of Biology Credits: (4) | BIOL 198 - Principles of Biology Credits: (4) |
| BIOL 340 - Structure and Function of the Human Body Credits: (8) | BIOL 340 - Structure and Function of the Human Body Credits: (8) |


| BIOL 450 - Modern Genetics Credits: (4) | BIOL 450 - Modern Genetics Credits: (4) |
| :---: | :---: |
| BIOL 455 - General Microbiology Credits: (4) | BIOL 455 - General Microbiology Credits: (4) |
| Physical Sciences (8 credit hours) | Physical Sciences (8 credit hours) |
| PHYS 113 - General Physics I Credits: (4) | PHYS 113 - General Physics I Credits: (4) |
| PHYS 114 - General Physics II Credits: (4) | PHYS 114 - General Physics II Credits: (4) |
| Quantitative Studies (7 credit hours) | Quantitative Studies (7 credit hours) |
| MATH 220 - Analytic Geometry and Calculus I | MATH 220 - Analytic Geometry and Calculus I |
| Credits: (4) | Credits: (4) |
| One of the following courses | One of the following courses |
| STAT 325 - Introduction to Statistics Credits: (3) | STAT 325 - Introduction to Statistics Credits: (3) |
| or | or |
| STAT 340 - Biometrics I Credits: (3) | STAT 340 - Biometrics I Credits: (3) |
| Professional studies (31 credit hours) | Professional studies (31 credit hours) |
| (Grades of C or higher required.) | (Grades of C or higher required.) |
| HN 132 - Basic Nutrition Credits: (3) | HN 132 - Basic Nutrition Credits: (3) |
| HN 400 - Human Nutrition Credits: (3) | HN 400 - Human Nutrition Credits: (3) |
| HN 413 - Science of Food Credits: (4) | HN 413 - Science of Food Credits: (4) |
| HN 450 - Nutritional Assessment Credits: (2) | HN 450 - Nutritional Assessment Credits: (2) |
| HN 510 - Life Span Nutrition Credits: (3) | HN 510 - Life Span Nutrition Credits: (3) |
| HN 535 - Energy Balance Credits: (2) | HN 535 - Energy Balance Credits: (2) |
| HN 600 - Public Health Nutrition Credits: (3) | HN 600 - Public Health Nutrition Credits: (3) |
| HN 620 - Nutrient Metabolism Credits: (3) | HN 620 - Nutrient Metabolism Credits: (3) |
| HN 631 - Clinical Nutrition I Credits: (2) | HN 631 - Clinical Nutrition I Credits: (2) |
| HN 632 - Clinical Nutrition II Credits: (3) | HN 632 - Clinical Nutrition II Credits: (3) |
| One of the following courses | One of the following courses |
| FSHS 350 - Family Relationships and Gender Roles | FSHS 350 - Family Relationships and Gender Roles |
| Credits: (3) | Credits: (3) |
| or | or |
| GNHE 310 - Human Needs Credits: (3) | GNHE 310 - Human Needs Credits: (3) |


| Supporting courses (21 credit hours) | Supporting courses (21 credit hours) |
| :---: | :---: |
| (Grades of C or higher required) | (Grades of C or higher required) |
| BIOCH 521 - General Biochemistry Credits: (3) | BIOCH 521 - General Biochemistry Credits: (3) |
| BIOCH 522 - General Biochemistry Laboratory | BIOCH 522 - General Biochemistry Laboratory |
| Credits: (2) | Credits: (2) |
| CHM 210 - Chemistry I Credits: (4) | CHM 210 - Chemistry I Credits: (4) |
| CHM 230 - Chemistry II Credits: (4) | CHM 230 - Chemistry II Credits: (4) |
| CHM 531 - Organic Chemistry I Credits: (3) | CHM 531 - Organic Chemistry I Credits: (3) |
| CHM 532 - Organic Chemistry Laboratory Credits: (2) | CHM 532 - Organic Chemistry Laboratory Credits: (2) |
| CHM 550 - Organic Chemistry II Credits: (3) | CHM 550 - Organic Chemistry II Credits: (3) |
| Unrestricted electives (10-11 credit hours) | Unrestricted electives (6-7 credit hours) |
| Total credit hours required for graduation (124) | Total credit hours required for graduation (120) |

Rationale: Reduce total credit hours from 124 to 120.

## Effective: Spring 2012

Impact: None

## GRADUATE COURSE CHANGES

## Graduate Council Approved on November 1 and December 6, 2011

## Course Change

| FROM: MC 685 - Media Management. (3) I. | TO: MC 585- Media Management. (3) I. 100\% |
| :--- | :--- |
| 100\% Lecture: Issues, ethics and practices in |  |
| managing media companies, with special emphasis |  |
| on problems and practices in converged media |  |
| operations. Pr.: Junior standing. | Lecture: Issues, ethics and practices in managing |
| media companies, with special emphasis on |  |
| problems and practices in converged media |  |
| operations. Pr.: Junior standing. K-State 8: |  |
| Global Issues and Perspectives; Social Science. |  |
|  | RATIONALE: This is one of a series of courses we <br> have changed to create a group of 500- level <br> courses, thereby parceling out the graduate <br> component of the previously 600- level course, <br> including History of Journalism, Ethics in Mass <br> Communications and International <br>  <br>  <br>  <br>  <br> Communication. By lowering the number, the <br> class attracts more undergraduates in our major. <br> We are also in a position to offer it to more <br> students in our minor. In a small class, laboratory <br> setting more time can be devoted to the practical <br> applications of managing media organizations and <br> the ability to utilize business-related databases. For <br> the undergraduate class, the course description |
|  | would essentially remain the same, as would the |
| pre-requisite of junior standing. |  |
|  | EFFECTIVE DATE: Spring 2012 |
|  |  |

## New Courses

## English

ADD: ENGL 756 - Business Communication. (3) I, II, S. A writing-intensive course intended for advanced undergraduate students, graduate students, and working professionals in business. Pr.: ENGL 200 or 210 or 415 or 417 or 516 or graduate standing.

RATIONALE: ENGL 756 will meet the needs of students enrolled in professional degree programs, particularly students enrolled in M.A. degree programs, including Business Administration, Accountancy, and Agribusiness. A pilot course for Food Science, offered under the rubric course ENGL 604 "Expository Writing Workshop," has seen steady and increasing enrollment, and it should now be offered under a dedicated course and title. ENGL 756 may be offered face-to-face or online, since many of these students have professional commitments and face scheduling and commuting constraints.

IMPACT: Dr. Charlie Griffin, Head of CSTD, has reviewed the proposed course and supports its creation. EFFECTIVE DATE: Spring 2012


#### Abstract

ADD: ENGL 758 - Scientific Writing. (3) I, II, S. A writing-intensive course intended for advanced undergraduate students, graduate students and working professionals in science. Pr.: ENGL 200 or 210 or 415 or 417 or 516 or graduate standing.

RATIONALE: ENGL 758 will meet the needs of students enrolled in professional degree programs, particularly students enrolled in M.A, degree programs, including Food Science and Agribusiness. A pilot course for Food Science, offered under the rubric course ENGL 604 "Expository Writing Workshop," has seen steady and increasing enrollment, and it should now be offered under a dedicated course and title. ENGL 758 may be offered face-to-face or online, since many of these students have professional commitments and face scheduling and consulting constraints.

IMPACT: Dr. Charlie Griffin, Head of CSTD, has reviewed the proposed course and supports its creation. EFFECTIVE DATE: Spring 2012


FSHS 724: The Army Family: from Challenge to Resilience
Credits: (3)
Study of the culture and complexities of the contemporary Army family, and the issues related to community-based support and service to Army family members.

## When Offered

Summer

RATIONALE: There is a growing number of positions available to students who have understanding of the military culture. This class equips them to move in to these jobs. This course has been successfully taught three semesters with an average of six distance graduate students completing the course each of those semesters.

EFFECTIVE DATE: Summer 2012

EDACE 765 Adult Learners and Integrating Technology into Curriculum. (3) I, II, S. This course includes an in-depth study of methods for integrating innovative technologies into the curriculum for adult learners. With an indepth understanding of adult learners, students will analyze learning theories and appropriate technologies for revlevance, effectiveness, and alignment with course curriculum. Recommended Prerequisite: EDACE 790.

IMPACT: None
RATIONALE: With a new certificate program focused on adult learners and curriculum development, it is important to address the appropriate integration of technology.

EFFECTIVE DATE: Summer 2012

EDACE 785 Designing Classroom Instruction and Curriculum for Adult Learners. (3) I, II, S. This course focuses on the systematic approach to instructional design for adult learners. A comprehensive discussion of all major components of curriculum design from instructional objectives, course sequencing, instructional strategies, formative assessments and summative evaluations will be included. A major focus will also be on transfer of learning. Recommended Prerequisites: EDACE 765 and EDACE 790.

RATIONALE: With a new certificate program focused on adult learners and curriculum development, it is important to offer a course on curriculum design for the target population.

EFFECTIVE DATE: Fall 2012

EDCI 781 Teaching the Theoretical Foundations of Constitutional Government. (1) I, II, S.
Examines the theories (e.g., natural rights, classical republicanism, and constitutionalism) and theorists (e.g., Aristotle, Locke, Hobbes, and Montesquieu) that most influenced constitutional thinking in the United States. Explores how to teach effectively about these theories and theorists.

IMPACT: None
RATIONALE: This course is offered every semester and is one of number of courses being developed that might comprise a new specialty area in Curriculum and Instruction, "Civic Education." The course fulfills a need for high quality professional development in social studies education. The course may be attractive to graduate students outside of education who are interested in teaching and learning about political ideas and principles.

EFFECTIVE DATE: Spring 2012

EDCI 782 Teaching the Historical Origins of Constitutional Government. (1) I, II, S. Examines seminal ideas, documents, and events in the creation of the United States Constitution such as problems with the Articles of Confederation, the characteristics of good government, the debates at the Philadelphia Convention, the Federalist Papers, and the Antifederalist Papers. Explores how to teach effectively these ideas, documents, and events.

IMPACT: None
RATIONALE: This course is offered every semester and is one of number of courses being developed that might comprise a new specialty area in Curriculum and Instruction, "Civic Education." The course fulfills a need for high quality professional development in social studies education. The course may be attractive to graduate students outside of education who are interested in teaching and learning about political ideas and principles.

EFFECTIVE DATE: Spring 2012

EDCI 783 Teaching the Development of Constitutional Principles. (1) I, II, S. Examines the development of political ideas and constitutional thinking since the Founding. Focuses on how the Bill of Rights, the amendment process, judicial review, and the Fourteenth Amendment are used to empower and limit government. Explores how teach effectively about developments in constitutional thought.

IMPACT: None
RATIONALE: This course is offered every semester and is one of number of courses being developed that might comprise a new specialty area in Curriculum and Instruction, "Civic Education." The course fulfills a need for high quality professional development in social studies education. The course may be attractive to graduate students outside of education who are interested in teaching and learning about political ideas and principles

EFFECTIVE DATE: Spring 2012

EDCI 784 Teaching the Institutions of Government. (1) I, II, S. Examines the powers, limits, and development of political institutions such as Congress, the President, the Supreme Court, and political parties. Explores how teach effectively about these institutions.

IMPACT: None
RATIONALE: This course is offered every semester and is one of number of courses being developed that might comprise a new specialty area in Curriculum and Instruction, "Civic Education." The course fulfills a need for high quality professional development in social studies education. The course may be attractive to graduate students outside of education who are interested in teaching and learning about political ideas and principles.

EFFECTIVE DATE: Spring 2012
EDCI 785 Teaching the Bill of Rights. (1) I, II, S. Examines the rights protected by the United States Constitution and the ways that rights empower citizens, limit government, and contribute to constitutional government. Explores how to teach effectively about rights.

IMPACT: None
RATIONALE: This course is offered every semester and is one of number of courses being developed that might comprise a new specialty area in Curriculum and Instruction, "Civic Education." The course fulfills a need for high quality professional development in social studies education. The course may be attractive to graduate students outside of education who are interested in teaching and learning about political ideas and principles.

EFFECTIVE DATE: Spring 2012

EDCI 787 Teaching Citizenship. (1) I, II, S. Examines development of the rights, responsibilities, and challenges of citizenship in the United States. Explores how teach effectively about citizenship.

IMPACT: None

RATIONALE: This course is offered every semester and is one of number of courses being developed that might comprise a new specialty area in Curriculum and Instruction, "Civic Education." The course fulfills a need for high quality professional development in social studies education. The course may be attractive to graduate students outside of education who are interested in teaching and learning about political ideas and principles.

EFFECTIVE DATE: Spring 2012

EDCI 794 Advanced Methods of Teaching. (3) I, II, S. Examines popular theories, important principles, research-based strategies, and best practices associated with effective teaching. Provides a venue to apply theory to practice; connect ideas and actions; and link content and pedagogy.

IMPACT: None

RATIONALE: This course has been offered every summer since 2008. The course fulfills the Curriculum and Instruction requirement in "Teaching and Learning." This course might also be attractive to graduate students outside of education who are interested in teaching and learning.

EFFECTIVE DATE: Spring 2012

ADD: MC 760 - Communication and Risk. (3) I. Promotes understanding of strategic communication and media as tools to prepare, mitigate, and respond to threats to public health and safety. Pr.: Graduate standing, or instructor permission with a 2.5 GPA.

RATIONALE: This class is a key component in the School's newfound focus in health and strategic communication. Risk communication is a growing field, as evidenced by the fact that several universities have established courses, programs, and other collaborations in the field (Cornell, Michigan State, Maryland and Washington, among others), and several publications exist that address the scholarship surrounding risk communication. Other key indicators of the growing importance of risk communication include the fact that an interest group has been established in the Association for Education in Journalism and Mass Communications, the leading academic organization in our field. Several Miller School faculty members regularly research topics in this area and present their findings at AEJMC and other academic organizations, and publish their results in leading academic journals. This class is currently being taught under the trial number MC 740 and has drawn students from a wide background, including Public Health, Communication Studies and Journalism and Mass Communications. The class has been listed among the courses in the interdisciplinary Public Health master's program on campus.

IMPACT: We see no negative impact on other campus curricula. We have contacted administrators in two departments, Steve Harbstreit, curriculum coordinator for Agricultural Communications (presently an undergraduate program): and Charles Griffin, head of Communication Studies. Both have consulted their faculty and report that there are no concerns with this course being added to the curriculum; in fact, students from both areas are currently taking the MC 740 version of this class.

EFFECTIVE DATE:
Fall 2012

ADD: $\quad$ MC 785 - Issues in Media Management. (3) I. Seminar in the analysis of issues in media management and media economics research and practices. Issues include leadership in converged media organizations, market research in media organizations, motivational behaviors in media organizations and developments in new technology as they relate to managing media organizations. Pr.: graduate standing or instructor permission.

RATIONALE: The Curriculum Committee and the JMC faculty have voted to create a new course at the graduate level in Issues in Media Management. Currently, graduate students take the class along with undergraduates in a 600-level course. We voted to split the class because we view it as a disservice to students and faculty to try to accommodate both groups in one class. Since media management is becoming an increasingly important field with numerous changes taking place in the media landscape, the class has become increasingly popular with our graduate students. As such, there is a need to create the separate section so that media management theory and research can be adequately explored. Research in media management and economics has developed significantly since the 1980 's, with a number of journals both national and international devoted to this area of study. A 700-level course will enable our students to develop expertise and a research agenda in this field, as well as enable them to study concepts and issues in more depth.

IMPACT: No impact; we are dividing one course in Media Management that we already offer into two courses, with the additional course to be offered at the graduate level.

ADD: MATH 705 - Computational Math. (3) I. Topics from complex analysis, vector calculus, higher-dimensional calculus, ordinary differential equations, linear algebra, and geometry of curves. Pr.: MATH 222

RATIONALE: The course is intended to prepare first-year graduate students for the Computational Mathematics component of the department's basic exam.

EFFECTIVE DATE:
Fall 2012

ADD: SPAN 600 - Introduction to Linguistics. (3) I, II. Introduction to the fundamentals of linguistic analysis, including the sound system, word and sentence formation, and semantic and pragmatic meaning. Formal and usage-based perspectives. Application of linguistics to language acquisition theory and to pedagogy. Taught in Spanish. Pr.: Minimum of 3 hours at the 500 level or equivalent.
K-State 8: Aesthetic Experience and Interpretive Understanding; Ethical Reasoning and Responsibility.

RATIONALE: This course will serve as an introduction to linguistics for our Spanish majors and minors. It will also serve as a graduate-level course option for our Spanish Second Language Acquisition M.A. candidates. Currently, the Spanish section offers graduatelevel seminars in linguistics for our M.A. candidates; however, undergraduate enrollment is restricted in those courses due to the students not meeting prerequisite requirements. This course will allow students interested in linguistics to solidify basic concepts before attempting the 700-level seminars (3700-level courses are required for graduation with a B.A.).

IMPACT: None
EFFECTIVE DATE: Spring 2012

ADD: PHYS 741 - The Physics of Lasers. (3) As needed. The theory of lasers including Light-matter interactions, atomic rate equations, threshold and oscillation; resonators and cavity modes; and laser dynamics including Q-switching and mode-locking. Pr.: PHYS 651 and PHYS 652.

RATIONALE: This new course will partially replace PHYS 841 - Lasers and Quantum Optics, which regards a combination of topics that is best handled by two courses and which has not been taught in a number of years. A graduate level course on laser physics has been taught several times over the past few years as a special topics course (PHYS 707 - Topics in Physics). The enrollment was high in all such offerings. This result and the fact that many of our graduate students require a rigorous laser physics class prior to doing research in this area indicate that this course should be given a permanent course number. The justification for requesting the number 741 is so that undergraduates will not need special permission to take this course provided they meet the pre-requisites: PHYS 651Introduction to Optics and PHYS 652 - Applied Optics \& Optical Measurements.

IMPACT: None
EFFECTIVE DATE: Spring 2012

ADD: PHYS 775 - Biological Physics. (3) As needed. This lecture course introduces basic cellular biology for students lacking a biological background and established connections between molecular and cellular phenomena (such as photosynthesis, cellular foraging, and nerve stimulation) and experimentally verifiable models built from physical (classical, statistical, and quantum mechanical, as well as electromagnetic) considerations. Pr.: PHYS 664.

RATIONALE: Currently we offer Biological Physics as either a special topics course (PHYS 707 - Topics in Physics) or as an advanced problems course (PHYS 808 - Advanced Problems) that is jointly offered with undergraduate course PHYS 400 - Independent Study. With three biological physicists in the department, it is appropriate to give this course a permanent number, as it will be necessary to offer this course semi-regularly in order to prepare students for research in this field. The course number 775 is chosen to be consistent with an advanced undergraduate/graduate course that is based heavily on thermodynamics, as this unused number lies in the range x60-x90 where the other thermodynamics and statistical mechanics-based courses are numbered (e.g. PHYS 971 Statistical Mechanics, PHYS 881 - Intro to Solid State).

IMPACT: None
EFFECTIVE DATE: Spring 2012

ADD: PHYS 870 - Nonlinear and Quantum Optics. (3) As needed. Theory and applications of nonlinear optics: difference and sum frequency generation; ultrashort pulse characterizations; third order effects; Raman scattering; and higher harmonic generation. Fundamentals of quantum optics including field quantization; coherent state; nonclassical light; and optical tests of quantum mechanics. Pr.: PHYS 633, 652, and 709.

RATIONALE: In conjunction with another new course PHYS 741 - Physics of Lasers, this new course will replace PHYS 841 - Lasers and Quantum Optics, which regards a combination of topics that is best handled by two courses and which has not been taught in a number of years. A graduate level course on nonlinear and quantum optics has been taught several times over the past few years as a special topics course (PHYS 953 - Advanced Topics in Atomic Interactions). The enrollment was high in all such offerings. This result and the fact that many of our graduate students require a rigorous advanced optics class prior to embarking on their doctoral research projects indicate that this course should be given a permanent course number. The prerequisites for this course will be PHYS 633Electromagnetic Fields II, PHYS 652- Applied Optics and Optical Measurement, and PHYS 709 - Applied Quantum Mechanics.

IMPACT: None
EFFECTIVE DATE: Spring 2012

ADD: SOCIO 645 - Post-Communist Societies. (3) II. Analysis of divergent scenarios of postcommunist social transformation, primarily in the countries of Eastern Europe and Eurasia. Discussion of the history of communist societies, changing social institutions, and social stratification in the post-communist contexts. Examines post-communist space and mobility, class and gender inequalities, political democratization, youth culture and prospects, crime, global connections of the transformation, human rights and civil society, security and conflict, religion and ethnicity, and the changing family. Pr.: SOCIO 211.

RATIONALE: This course is designed for senior level undergraduate and graduate students with an interest in social transformation in post-communist countries of Eastern Europe and Eurasia. It has been previously taught once as SOCIO 500/701 in Spring 2010 as a gateway course for a study abroad program (Post-Communist Societies Study Tour), and it is scheduled to be taught in Spring 2012. The course fits well with the academic goals of sociology program, particularly its specializations in international development and social change. This course adds a needed dimension of area studies to the existing focus on international development in sociology program. The course would be interesting to non-majors who are interested in sociological perspective on post-communist transformations.

IMPACT: Departments of History and Political Science were contacted in order to assess the impact since they offer courses on Russian and Eastern Europe. There were no objections to the proposed course.
Prof. Herspring (Political Science) wrote "I have no objection to your teaching such a class, it is clearly missing. We have courses in history, and politics, but nothing in the area of sociology. I am in the process of changing my course to make it less historical, but I am currently swamped with a book I am trying to finish."
Prof. Stone (History) wrote: "Thank you for passing along the syllabus for your Post-Communist Societies (Socio 645). This does not duplicate any history department offerings. Because of its emphasis on the period after 1989/1991, there is very little chronological overlap with my courses on $20^{\text {th }}$-century Russia (Hist 592) and $20^{\text {th }}$-century Eastern Europe (Hist 582). In addition, since its focus is on society and sociological methods, there's relatively little thematic overlap. The only impact would be a positive one, since it would give students interested in exploring the former Soviet bloc an additional course to take.

EFFECTIVE DATE: Spring 2013


[^0]:    *Marked electives must be upper division courses, 300 and above.

