Supplemental Information
Course and Curriculum items
FS Academic Affairs Committee Review
November 15, 2016 Meeting

College of Engineering (11-3-16)

Pages 2-16

College of Human Ecology (10-27-16)

Pages 17-22

College of Agriculture (11-2-16)

Pages 23-61

Graduate Course and Curriculum changes (11-1-16)

Pages 62-81

College of Engineering (11-3-16)

Non-Expedited COURSE PROPOSALS
Courses Numbered 000-599

New Courses

Department of Electrical and Computer Engineering

Add:

BME 001 - New Student Assembly.

Credits: 0

This course addresses the emphasis areas in the KSU biomedical engineering (BME) curriculum and facilitates the formation of a community consisting of BME students and faculty. Students learn about biomedical research pursued by KSU faculty and become aware of BME experiential learning programs, professional societies, and job/internship opportunities.

Note
The course meets every other week.

Offered
Fall

UGE course
No

K-State 8
None

Rationale: This course is being proposed as part of the core curriculum for the undergraduate degree in Biomedical Engineering. This is the first-semester course for new BME students. It will function as an introduction to the field of BME, including an overview of current projects in our department. As a zero-hour class, it will not involve substantial coursework and will be "graded" on attendance. The goal is to provide an overview and also help foster a feeling of community/belonging among students in the department.

Effective: Fall 2017

Impact: None

Add:

BME 200 – Introduction to Biomedical Engineering

Credits: 3

Biomedical engineering addresses the application of engineering principles to challenges faced by the health care and life science communities. This course introduces students to the areas of study that comprise this broad field and provides students with guidance toward biomedical career opportunities. Topics of interest include the history of biomedical technology, medical devices, medical imaging, biomedical optics, biomechanics, biomaterials, tissue engineering, rehabilitation engineering, neural interfacing, prosthetics, assistive technology, telemedicine, home care, wearable devices, health care information technology, considerations for diverse populations, and medical ethics.

Note
Lecture

Offered
Fall

UGE course
No

K-State 8
Human Diversity within the US
Historical Perspectives

Rationale for Tags:
D = Human Diversity within the US: Biomedical engineers are tasked with creating medical care solutions for an incredibly wide spectrum of users, and the diversity of this user base is germane from concept creation to product implementation. The cultures, ethnic backgrounds, religious perspectives, and socio-economic situations of individuals all affect the relative impact of a biomedical solution. Specific areas of interest with regard to diversity include the following: population- and ethnic-based access to health care services; health care services for the disabled and other vulnerable groups; telemedicine as a means to provide care to underserved populations; smartphone-based medical devices as a means to even the playing field for healthcare delivery; issues one must consider when designing devices for individuals with different skin colors; and cultural acceptability of medical devices and varying notions of intrusiveness. Diversity and medical ethics are closely intertwined in this design space, and such issues will be addressed in this course.

H = Historical Perspectives: This course will offer historical perspectives in areas such as the following: health care delivery over the ages and the significant advances that have occurred in the last 100 years; the historical use of medical devices for research and the ethical considerations that have led to internal review boards and informed consent; 'age-old' medical practices that continue to inform modern health care technology; and telemedicine as a means to re-enact personalized health care delivery as was the norm prior to the move toward centralized hospitals and clinics

Rationale: This course is being proposed as part of the core curriculum for the undergraduate degree in Biomedical Engineering. It will serve as an introduction to the field of biomedical engineering and give students an early view of the various facets of this broad field of study. In that role, the proposers trust

that the course will affirm students' choices to enroll in the biomedical engineering degree program and increase their excitement about the semesters to come. This course will essentially be a reworked version of the course *ECE 571 – Introduction to Biomedical Engineering*, which has served students in the KSU College of Engineering for more than 30 years and now supports 30 to 40 students every Spring in its new 3-credit format. In a similar role, BME 200 will be a course taken as an elective by students enrolled in non-BME degree programs, ideally leading to a Fall course section that accommodates 100 students, including students outside of engineering.

Impact: None

Effective: Fall 2017

Add:

BME 430 – Biomaterials

Credits: 3

This course will provide an overview of interactions between materials and biological systems, techniques to assess biomaterial characteristics, and the role of biomaterial selection during the design of medical devices for select applications.

Note
Lecture

Offered
Fall

Requisite:
Pre-requisite: BIOL 198, CHM 230

UGE course
No

K-State 8
No

Rationale: This course is being proposed as part of the core curriculum for the undergraduate degree in Biomedical Engineering.

Impact: Bio Ag Biomaterials
Effective: Fall 2017

Add:

BME 451 – Biomechanical Engineering

Credits: 3

This course provides an introduction to the mechanics of biological tissues and systems at the macroscopic scale. It covers the structure and mechanics of biological tissue based on the principles of statics and dynamics, with an emphasis on bone, muscle, and connective tissue.

Note
Lecture

Offered
Spring

Requisite:
Pre-requisite: BIOL 198, PHYS 213, MATH 222

UGE course
No

K-State 8
No

Rationale: This course is being proposed as part of the core curriculum for the undergraduate degree in Biomedical Engineering.

Impact: Kinesiology Department

Effective: Fall 2017

Add:

BME 490 – Undergraduate BME Design Experience I

Credits: 1

The undergraduate design courses are intended to be taken during the fall and spring semesters of each BME student's junior year. The first semester is designed for project selection and planning, and it includes a lecture component to cover important considerations such as human subject protections and electrical safety. The follow-on course, BME 491, will focus on the implementation of the design selected in 490.

Note
Lecture

Offered
Fall

Requisite:

Pre-requisite: PHYS 214, BME 200 and Co-Req: BIOL 340 or KIN 360

UGE course
No

K-State 8
None

Rationale: This course is being proposed as part of the core curriculum for the undergraduate degree in Biomedical Engineering. The two-semester, junior-level undergraduate design experience is intended to give students an opportunity to implement skills learned in other courses. In this first semester, lectures will give students the basics of human safety and ethics considerations in biomedical engineering. Students will select a project for the following semester (BME491).

Impact: Biology and Kinesiology Department

Effective: Fall 2017

Add:

BME 491 – Undergraduate BME Design Experience II

Credits: 2

The undergraduate design courses are intended to be taken during the fall and spring semesters of each BME student's junior year. Students will participate in the guided design of a BME project selected in the previous semester. The course includes a lecture/meeting once per week, as well as a scheduled three-hour lab time for students to work on their design.

Note
Lab and Lecture

Offered
Spring

Requisite:
Pre-requisite: BME 490 and (BIOL 340 or KIN 360)

UGE course
No

K-State 8
None

Rationale: This course is being proposed as part of the core curriculum for the undergraduate degree in Biomedical Engineering. This is a lab/design course for BME students, designed as a follow-on to BME 490. Students will perform design projects under the supervision of one or more faculty members.

Impact: Biology and Kinesiology Department

Effective: Fall 2017

Add:

BME 575 – Clinical Systems Engineering

Credits: 3

This course addresses the creation and use of biomedical "systems of systems" as applied in various health care delivery scenarios, including hospitals, home care settings, and environments that employ personalized wearable systems. The material focuses on technical areas typically associated with the field of "clinical engineering," emphasizing the use of design standards that promote system interoperability and reconfiguration. Hardware/software interfacing and information management will be addressed from the sensor level to the level of the clinical enterprise. The course will also address human elements related to such systems (e.g., human factors, safety, medical ethics, training, etc.) as well as global technical, political, and sociological issues that may promote or hinder their use in different countries and cultures.

Note
Lecture

Offered
Spring

Requisite:
Pre-requisite: ECE 540 or equivalent

UGE course
No

K-State 8
Ethical Reasoning and Responsibility
Global Issues and Perspectives
E = Ethical Reasoning and Responsibility: This course addresses a number of topics related to medical ethics: internal review boards (IRBs), informed consent, and human subject protection, especially in light of historical oversights; proper training and compliance for both patients and providers; management of intellectual property; medical data ownership and protection; medical device and procedure liability; and medical device regulation.

G = Global Issues and Perspectives: This course addresses global issues/constraints relevant to biomedical system design and use: international standards for device (hardware/software) interoperability; international disease classification codes; accepted standards for the storage of signals, images, patient demographic data, and medical histories; regulatory issues in different countries, including new device approvals; global deployment of biomedical systems where differences in culture, power grids, and information protection are germane; opportunities for clinical care in the developing world,

Rationale: This course is being proposed as part of the core curriculum for the undergraduate degree in Biomedical Engineering. The proposers intend this course to be taken late in the curriculum. Whereas earlier courses will focus on more partitioned elements of biomedical engineering, this course will address aggregate collections of devices (both hardware and software) that comprise clinical "systems of systems" and the interoperability principles that relate to their design and use. Further emphasis will be placed on human elements related to such systems (e.g., human factors, safety, medical ethics, training, etc.) as well as global technical, political, and sociological issues that may promote or hinder their use in different countries and cultures.

Impact: None

Effective: Fall 2017

Add:

BME 590 – Senior Design Experience I

Credits: 3

The two-semester BME senior design experience is a culminating design sequence intended for the last two semesters of each BME student's degree program. BME 590 – the first course in that sequence – integrates practice in verbal/written communication skills with the initiation of a collaborative design project to emulate a professional technical environment. The course addresses engineering ethics, design theory, project management, team dynamics, and socio-economic considerations related to design.

Note
Lecture

Offered
Fall and Spring

Requisite:
Pre-requisite: ECE 540, BME 491 and ENGL 415

UGE course
No

K-State 8
Ethical Reasoning and Responsibility
Global Issues and Perspectives
Design ethics (E) will be addressed in the context of honorable business practices, intellectual property ownership, and the creation of products that meet both functional design requirements and safety constraints. This course will include the development of a business plan that requires an understanding of global issues (G), particularly for engineering outsourcing and global manufacturing and logistics.

Rationale: This course is being proposed as part of the core curriculum for the undergraduate degree in Biomedical Engineering. *BME 590 – Senior Design Experience I* will be the first course in a two-course sequence that offers a substantive, culminating design experience. The course will address design ethics, collaborative design, project management, and team dynamics, all of which are common to engineering

design teams regardless of sub-discipline. Therefore, in its initial implementation, this course will be cross-listed with *ECE 590 – Senior Design Experience I*, with the thought that the BME students will meet in the same classroom with ECE students. This arrangement should promote cross-disciplinary design teams, give the BME students a better sense of community, and help to minimize any additional instructor and facility loads imposed by the creation of the BME curriculum.

Impact: None

Effective: Fall 2017

Add:

BME 591 – Senior Design Experience II

Credits: 3

The two-semester BME senior design experience is a culminating design sequence intended for the last two semesters of each BME student's degree program. BME 591 – the second course in that sequence – addresses the implementation and demonstration of the project design initiated in BME 590. The course includes oral presentations for design reviews and technical documentation, where the latter addresses project plans; design operations, analyses, architecture, and requirements; design descriptions; and a user manual.

Note
Lecture

Offered
Fall, Spring

Requisite:
Pre-requisite: BME 590

UGE course
No

K-State 8
No

Rationale: This course is being proposed as part of the core curriculum for the undergraduate degree in Biomedical Engineering. *BME 591 – Senior Design Experience II* will be the second course in a two-course sequence that offers a substantive, culminating design experience. The primary purpose of this course is provide students with the framework to complete the design effort that they initiated in BME 590. This course will be cross-listed with *ECE 591 – Senior Design Experience II*, with the thought that the mentorship and resource needs of these BME students will mirror those of the ECE students. This arrangement should promote cross-disciplinary design teams, give the BME students a better sense of community, and help to minimize any additional instructor and facility loads imposed by the creation of the BME curriculum.

Impact: None

Effective: Fall 2017

Add:

ECE 591 – Senior Design Experience II

Credits: 3

Second semester of the senior design experience that implements and demonstrates the project design begun in ECE 590. It includes oral presentations for design reviews and technical documentation such as Project Plan, Concept of Operations, Analyses, Architecture and Requirements, Design Descriptions, and User Manual.

Note
Lecture

Offered
Fall and Spring

Requisite:
Pre-requisite: ECE 590

UGE course
No

K-State 8
No

Rationale: Expand the current ECE 590 course to two semesters (this added course would be the second semester) to provide a better learning experience for the students, a longer time to develop their projects, and better conformance to ABET standards.

Impact: None

Effective: Spring 2018

Course Changes

From:

ECE 590 - Senior Design Experience

Credits: 3

Integrates communications, both verbal and written, with ethics and a collaborative design project to emulate a technical professional environment.

Note
Three hours recitation a week.

Requisites
Prerequisite: ECE 511, 525, 540 and ENGL 415.

Typically Offered
Fall, Spring

UGE course
No

K-State 8
Ethical Reasoning and Responsibility

To:

ECE 590 - Senior Design Experience I

Credits: 3

Integrates communications, both verbal and written, with ethics and a collaborative design project to emulate a technical professional environment. Introduces design theory, project management, team dynamics, and socio-economic context to design.

Note
Three hours recitation a week.

Requisites
Prerequisite: ECE 511, 525, 540 and ENGL 415.

Typically Offered
Fall, Spring

UGE course
No

K-State 8
Ethical Reasoning and Responsibility
Global Issues and Perspectives

Rationale for K-State 8 tag: The course will add the K-State 8 tag of G, "Global Issues and Perspectives," because it will include development of a business plan that requires an understanding of global issues, particularly for engineering outsourcing and global manufacturing and logistics.

Rationale: Expand this course to two semesters to provide a better learning experience for the students, longer opportunity to develop their projects, better conform to ABET standards, and include the K-State 8 tag "G" for Global Issues and Perspectives.

Impact: None

Effective: Fall 2017

Non-Expedited COURSE PROPOSALS / Courses Numbered 600-999

Department of Electrical and Computer Engineering

Add:

BME 674 – Medical Imaging

Credits: 3

This course addresses various modalities of medical imaging as an extension of biomedical instrumentation. Methods for image data acquisition, processing, and display form the core for this course, which also addresses industry standards for image storage and transmission. Diagnostic applications for medical images are emphasized along with safety and ethics issues that relate to the acquisition and management of biomedical image data.

Note
Lecture

Offered
Spring

Requisite:
Pre-requisite: ECE 512

UGE course
No

K-State 8
Natural and Physical Sciences
Rationale for K-State 8 tag: This course addresses the physical mechanisms involved in the creation of medical imaging data.

Rationale: This course is being proposed as part of the core curriculum for the undergraduate degree in Biomedical Engineering. The proposers intend this course to be taken late in the curriculum once a student has an established theoretical and computational base.

Impact: None

Effective: Fall 2017

Department of Electrical and Computer Engineering

NEW: Biomedical Engineering (BME) (B.S.) **(See full proposal in separate the separate attachment)**

Bachelor's degree requirements
Freshman year

Fall semester (17 credit hours)

- BME 001 - New Student Assembly Credits: (0)
- BME 200 - Intro to Biomedical Engg Credits: (3)
- CHM 210 - Chemistry I Credits: (4)
- *ENGL 100 - Expository Writing I Credits: (3)
- MATH 220 - Analytic Geometry and Calculus I Credits: (4)
- KIN 110 - Intro to Public Health Credits: (3)

or

ECON 110 - Principles of Macroeconomics Credits: (3)

Spring semester (16 credit hours)

- MATH 221 - Analytic Geometry and Calculus II Credits: (4)
- PHYS 213 - Engineering Physics I Credits: (5)
- CHM 230 - Chemistry II Credits: (4)
- Technical Electives Credits: (3)

Sophomore year

Fall semester (17 credit hours)

- COMM 105 - Public Speaking IA Credits: (2)
- MATH 240 - Elementary Differential Equations Credits: (4)
- PHYS 214 - Engineering Physics II Credits: (5)
- Technical Electives Credits: (6)
-

Spring semester (18 credit hours)

- BIOL 198 – Principles of Biology Credits:(4)
- MATH 222 - Analytic Geometry and Calculus III Credits: (4)
- CIS 200 - Programming Fundamentals Credits: (4)
- STAT 510 - Introductory Probability and Statistics I Credits: (3)
- Technical Electives Credits: (3)

Junior year

Fall semester (15 credit hours)

- BIOL 340 – Structure and Function of the Human Body Credits: (8)
- BME 430 – Biomaterials Credits: (3)
- ECE 540 - Applied Scientific Computing for Engineers Credits: (3)
- BME 490 – Undergraduate BME Design Experience I Credits: (1)

Spring semester (17 credit hours)

- CHM 531 – Organic Chemistry I Credits: (3)
- ECE 512 - Linear Systems Credits: (3)
- BME 451 – Biomechanical Engineering Credits: (3)
- ENGL 415 - Written Communication for Engineers Credits: (3)
- BME 491 – Undergraduate BME Design Experience II Credits: (2)
- Technical Electives Credits: (3)

Senior year

Fall semester (18 credit hours)

- ECE 772 – Theory and Techniques of Bioinstrumentation Credits: (2)
- ECE 773 – Bioinstrumentation Design Laboratory Credits: (1)
- ECE 590 - Senior Design Experience I Credits: (3)
- ***Technical Electives Credits: (9)
- **Humanities/Social Science Elective Credits: (3)

Spring semester (15 credit hours)

- BME 674 – Medical Imaging Credits: (3)
- BME 575 – Clinical Systems Engineering Credits: (3)
- ECE 591 - Senior Design Experience II Credits: (3)
- ***Technical electives Credits: (3)
- **Humanities/Social Science Elective Credits: (3)

Notes

*Students must complete the appropriate prerequisite credits for ENGL 415, but may apply only 3 credit hours of ENGL 415 prerequisite credits towards degree requirements.
For the good and benefit of the student and their future employer, the ECE department enforces a C- prerequisite policy for all courses listed by number in the curriculum and for any in-major technical elective course applied toward the degree. A grade of C or better must be earned in all prerequisites to such a course before enrolling in that course.
**Humanities and Social Science electives are to be selected from the list of courses approved by the College of Engineering. Students should select these courses as needed to complete the requirements of the K-State 8 General Education program.
***Technical electives must be selected from the list of accepted courses.
***** No more than twelve (12) credit hours of courses in electrical engineering, computer engineering, or biomedical engineering may be transferred to Kansas State University for credit toward a bachelor's degree in biomedical engineering. Further, those courses selected for transfer credit must be equivalent to courses in the list below and must be such that the prerequisites for the listed course are also satisfied. Any courses transferred must be taken from ABET accredited programs: ECE 210, ECE 241, ECE 410, ECE 511, ECE

512, ECE 519, ECE 590/591, ECE 772, BME 200, BME 430, BME 451, BME 490/491, BME 575, and BME 674.

Students participating in exchange programs or transferring in from outside the United States may request waivers of this policy. Waivers must be obtained in advance of the exchange semester.

NOTE: K-State 8 General Education Requirements

_____

IMPORTANT NOTE: Students must meet the requirements of the K-State 8 General Education Program.

Total credit hours required for graduation (133)

Rationale: This new program is being created for two fundamental reasons: 1) biomedical engineering is one of the most sought-after degrees noted by prospective students who meet with the College of Engineering recruitment team; and 2) according to the Bureau of Labor Statistics, the job outlook for biomedical engineers is projected to grow nationally by over 20% from 2014 to 2024. Biomedical companies in the Midwest will represent a significant portion of that growth, including those considered part of the Midwest Animal Health Corridor. For over 40 years, the KSU ECE department has supported a Regents-approved Bioengineering Option within Electrical Engineering, and the department offers a collection of biomedical courses. A number of ECE faculty have extensive biomedical engineering backgrounds, having taught biomedical courses and served as investigators on numerous biomedical research grants. This course work is complemented by a substantive research portfolio. For example, the four ECE faculty that form the faculty core for this proposal maintain active research laboratories that have supported more than 70 funded efforts for which these individuals have served as investigators since 2000. These efforts have garnered more than $17M from numerous funding sources, and most of that work was/is biomedical in nature. The diversity of ECE's biomedical teaching and research partners on the KSU campus is significant and includes faculty in at least 22 departments within 7 KSU colleges. Hence, ECE is the logical home for this new program.

Impact:

List of Programs Impacted by BME Curriculum			
Dept.	Contact	Courses	Note:
BIOL	Brian Spooner	198, 340	No concerns for BIOL 198; BIOL 340 is transitioning to a two-semester course, 4 credits each
CHM	Eric Maatta	210, 230, 531	No concerns - DH email 9/20/2016
CS	Scott DeLoach	200, 300*, 501*	No concerns if CIS 200 can move to Fall or add a GTA
COMM	Tim Steffensmeier	105	No concerns - DH email 9/20/2016
ECON	Bill Blankenau	110	No concerns - DH voice call 9/22/2016; But would like to know if all COE programs requiring ECON would be ok with giving flexibility of ECON 110 or ECON 120?
ENGL	Karin Westman	100, 415	No response
KIN	Craig Harms	110, 330, 360	No concerns on KIN 110 or KIN 360; Changed the name of BME 451 to Biomechanical Engineering to avoid a conflict with KIN 330 - Biomechanics
MATH	Andy Bennett	220, 221, 222, 240	No concerns – 10/25/2015
PHYS	Brett DePaola	213, 214	No response
STAT	Gary Gadbury	510	Need a larger room or possible summer school.
BAE	Joe Harner	BSE program	
CHE	Jim Edgar		

Effective: Fall 2017

College of Human Ecology (10-27-16)

Non-expedited Course Change Proposals 599 and below

Department of Apparel, Textiles, and Interior Design

Course Add

ID 300
Global Experiences in Interior Design

Credits: (1-3)

An experiential learning course that prepares students for and immerses them in an international study tour designed to enhance their global and cultural awareness. Lectures and tours target important interior/ architectural design, furniture, and objects of material culture.

When Offered: Fall, Spring, Summer

K-State 8 Tag: None

Pre-Requisite: Instructor's Permission

Rationale: Study tours are offered to all Interior Design undergraduate students, regardless of their level of progress within the program. A catalog number of 300 reflects that study tour opportunities and experiences are appropriate for any student classification. The existing number of ID600 will continue to be retained for use by students taking their second or third study tour, or for graduate students from other disciplines on campus.

IMPACT: None

Effective: Summer 2017

School of Family Studies and Human Services

Course Add

PFP 468
Professional Practice Management in Personal Financial Planning

Credits: (1)

Issues and solutions for challenges of managing family financial planning practices.

When Offered: Spring

K-State 8 Tag: None

Pre-Requisite: PFP 305, KSU cumulative GPA of 2.5 or higher.

Rationale: The PFP program is switching from two general career classes to a specific pre-internship class and a professional practice management course. This switch aligns with the addition of an internship requirement.

IMPACT: None

Effective: Spring 2017

Course Add
PFP 579 **Pre-Internship Orientation in Personal Financial Planning** **Credits:** (1) Consideration and application of professional knowledge and skills necessary for selection and placement in a financial planning firm for a supervised experience. **When Offered:** Spring **K-State 8 Tag:** None

Rationale: The PFP program is implementing an internship requirement. This course is needed to prepare students for their internship, as well as help them locate employers.

IMPACT: None

Effective: Spring 2017

Course Add
PFP 580 **Internship in Personal Financial Planning** **Credits:** (3) Internship experience in personal financial planning or an allied field. **When Offered:** Summer **K-State 8 Tag:** None **Pre-Requisite:** PFP 579

Rationale: The PFP program is implementing an internship requirement. This course will track students over the course of their internship.

IMPACT: None

Effective: Spring 2017

Non-expedited Undergraduate CURRICULUM Change Proposal

School of Family Studies and Human Services

Personal Financial Planning (B.S.)	**Personal Financial Planning (B.S.)**
The personal financial planning program combines course work in personal finance, family relationships and decision making, consumer rights, insurance, investments, retirement and estate planning, economics, and accounting. Emphasis is placed on understanding financial products and how they work, as well as the role of family in financial decisions. The program offers financial planning courses that satisfy CFP® Board's education requirement for the CFP®/CERTIFIED FINANCIAL PLANNER® certification.	The personal financial planning program combines course work in personal finance, family relationships and decision making, consumer rights, insurance, investments, retirement and estate planning, economics, and accounting. Emphasis is placed on understanding financial products and how they work, as well as the role of family in financial decisions. The program offers financial planning courses that satisfy CFP® Board's education requirement for the CFP®/CERTIFIED FINANCIAL PLANNER® certification.
Kansas State University does not certify individuals to use the CFP®, CERTIFIED FINANCIAL PLANNER®, and CFP® (with flame logo)® certification marks. CFP® certification is solely granted by the Certified Financial Planner Board of Standards to individuals who, in addition to completing an education requirement such as this CFP Board-Registered program, have met ethics, experience, and examination requirements.	Kansas State University does not certify individuals to use the CFP®, CERTIFIED FINANCIAL PLANNER®, and CFP® (with flame logo)® certification marks. CFP® certification is solely granted by the Certified Financial Planner Board of Standards to individuals who, in addition to completing an education requirement such as this CFP Board-Registered program, have met ethics, experience, and examination requirements.
Admission to the personal financial planning program requires completion of FSHS 105 with a grade of B or better.	Admission to the personal financial planning program requires completion of FSHS 105 with a grade of B or better.
Bachelor's Degree Requirements **General Requirements (~~41-44~~ credit hours)** **Communications (8-9 credit hours)**	**Bachelor's Degree Requirements** **General Requirements (35-36 credit hours)** **Communications (8-9 credit hours)**
COMM 105 - Public Speaking IA Credits: (2) or COMM 106 - Public Speaking I Credits: (3) ENGL 100 - Expository Writing I Credits: (3) ENGL 200 - Expository Writing II Credits: (3)	COMM 105 - Public Speaking IA Credits: (2) or COMM 106 - Public Speaking I Credits: (3) ENGL 100 - Expository Writing I Credits: (3) ENGL 200 - Expository Writing II Credits: (3)
Social Sciences (~~9~~ credit hours)	**Social Sciences (6 credit hours)**
ECON 110 - Principles of Macroeconomics Credits: (3) PSYCH 110 - General Psychology Credits: (3) ~~SOCIO 211 - Introduction to Sociology Credits: (3)~~	ECON 110 - Principles of Macroeconomics Credits: (3) PSYCH 110 - General Psychology Credits: (3)
Humanities (6 credit hours) Only a course of 3 credit hours or more will apply.	**Humanities (6 credit hours)** Only a course of 3 credit hours or more will apply.
Natural and physical sciences (7 credit hours) Life science elective and Physical Science elective. One course must be taken from each area; one course must include a laboratory.	**Natural and physical sciences (7 credit hours)** Life science elective and Physical Science elective. One course must be taken from each area; one course must include a laboratory.

Quantitative Studies (7~~-9~~ credit hours) CIS 102 - Introduction to Spreadsheet Applications Credits: (1) ~~or~~ ~~CMST 108 - PC Desktop Software Credits: (3)~~ STAT 350 - Business and Economic Statistics I Credits: (3) Choose one from the following: MATH 100 - College Algebra Credits: (3) or A college-level calculus course Credits: (3)	**Quantitative Studies (7 credit hours)** CIS 102 - Introduction to Spreadsheet Applications Credits: (1) STAT 350 - Business and Economic Statistics I Credits: (3) Choose one from the following: MATH 100 - College Algebra Credits: (3) or A college-level calculus course Credits: (3)
Integrative Human Ecology Courses (~~4~~credit hours) ~~FSHS 350 - Family Relationships and Gender Roles Credits: (3)~~ ~~or~~ ~~GNHE 310 - Human Needs Credits: (3)~~ GNHE 210 - Foundations of Human Ecology Credits: (1)	**Integrative Human Ecology Courses (1 credit hours)** GNHE 210 - Foundations of Human Ecology Credits: (1)
Professional Studies (65 credit hours) **Grades of C or higher required.**	**Professional Studies (65 credit hours)** **Grades of C or higher required.**
Professional ~~FSHS~~ courses (~~41~~ credit hours)	**Professional courses (44 credit hours)**
~~PFP 100 - Family Financial Planning as a Career Credits: (1)~~ ~~Must be taken twice.~~ PFP 105 - Introduction to Personal Financial Planning Credits: (3) FSHS 110 - Introduction to Human Development Credits: (3) FSHS 301 - The Helping Relationship Credits: (3) PFP 310 - Family and Consumer Economics Credits: (3) PFP 305 - Advanced Personal Financial Planning Credits: (3) PFP 456 - Financial Counseling and Communication Credits: (3) PFP 460 - Retirement Planning Concepts Credits: (3) PFP 462 – Personal Investment Concepts I Credits: (3) PFP 464 - Estate Planning Concepts Credits: (3) PFP 466 – Personal Risk Management and Insurance Planning Credits: (3) PFP 472 - Personal Income Tax Concepts Credits: (3) PFP 482 – Personal Investment Concepts II Credits: (3) PFP 595 - Professional Seminar in Personal Financial Planning Credits: (3)	PFP 105 - Introduction to Personal Financial Planning Credits: (3) FSHS 110 - Introduction to Human Development Credits: (3) FSHS 301 - The Helping Relationship Credits: (3) PFP 305 - Advanced Personal Financial Planning Credits: (3) PFP 310 - Family and Consumer Economics Credits: (3) PFP 456 - Financial Counseling and Communication Credits: (3) PFP 460 - Retirement Planning Concepts Credits: (3) PFP 462 – Personal Investment Concepts I Credits: (3) PFP 464 - Estate Planning Concepts Credits: (3) PFP 466 – Personal Risk Management and Insurance Planning Credits: (3) PFP 468 – Professional Practice Management in PFP (1) PFP 472 - Personal Income Tax Concepts Credits: (3) PFP 482 – Personal Investment Concepts II Credits: (3) PFP 579 – Orientation to PFP Internship (1) PFP 580 - PFP Internship (3) PFP 595 - Professional Seminar in Personal Financial Planning Credits: (3)
Other supporting courses (~~24~~ credit hours)	**Other supporting courses (21 credit hours)**
ACCTG 231 - Accounting for Business Operations Credits: (3) ACCTG 241 - Accounting for Investing and Financing Credits: (3) ECON 120 - Principles of Microeconomics Credits: (3) ~~ECON 530 - Money and Banking Credits: (3)~~ MANGT 390 - Business Law I Credits: (3) MKTG 400 - Introduction to Marketing Credits: (3) MKTG 542 - Fundamentals of Professional Selling Credits: (3) Choose one from the following:	ACCTG 231 - Accounting for Business Operations Credits: (3) ACCTG 241 - Accounting for Investing and Financing Credits: (3) ECON 120 - Principles of Microeconomics Credits: (3) MANGT 390 - Business Law I Credits: (3) MKTG 400 - Introduction to Marketing Credits: (3) MKTG 542 - Fundamentals of Professional Selling Credits: (3) Choose one from the following: AGEC 513 - Agricultural Finance Credits: (3) FINAN 450 - Principles of Finance Credits: (3)

AGEC 513 - Agricultural Finance Credits: (3) FINAN 450 - Principles of Finance Credits: (3)	**Select One Track Option (19-20 Hours)** **Family Financial Planning (6 hours)** ECON 530 - Money and Banking Credits: (3) FSHS 350 – Family Relationships and Gender Roles Credits: (3) 13-14 hours of electives **Sales (6 hours)** MKTG 560 Sales Force Leadership Credits: (3) MKTG 570 – Advanced Selling Credits: (3) 13-14 hours of electives **Entrepreneurship (9 hours)** ENTRP 340 – Intro to Entrpreneurship Credits: (3) AND Choose 6 hours from Entreprenuership Minor: ENGL 455 – Exploring Creativity Credits: (3) ENTRP 350 – Technology & Innovation Management Credits: (3) ENTRP 466 Digital Business Credits: (3) ENTRP 520: Social Entrepreneuership Credits: (3) ENTRP 540: Entreprenuerial Consulting Credits: (3)
Electives (~~11~~ 14 credit hours)	**Electives (10-14 credit hours)**
Total hours required for graduation (120)	**Total hours required for graduation (120)**

Rationale: The PFP program is working to align program curriculum with professional standards and expectations to better prepare students for the work place. Within the core curriculum, this is being done by reducing general education requirements, adding an internship course, and adding three professional track options: family financial planning, sales, and entrepreneurship. In addition, the requirement of the two one-hour PFP 100 careers courses will be replaced by a one- hour pre-internship course and a one hour professional practices course. CMST 108 is a course offered on the Polytechnic campus. Since we no longer offer a program on the Polytechnic campus, we are removing it from the curriculum.

Impact: The curriculum changes impact SOCIO, ECON, FSHS, GNHE, ENGL, ENTRP, and MKTG. We have reached out to each unit to inform them of these changes.
MKTG: Dawn Deeter-Schmelz, Professor & J.J. Vanier Distinguished Chair of Relational Selling and Marketing, Director, Kansas State University National Strategic Selling Institute responded on September 6, 2016 in support of the addition of the MKTG courses.
ENTRP: Chad Jackson, Director Center for the Advancement of Entrepreneurship, Department of Management, responded September 6, 2016 in support of the ENTRP course options
ENGL: Karin Westman, Dept. Head, English responded September 8, 2016 in support of the ENGL course options.
ECON: Daniel Kuester, Roger Trenary Chair and Director of Undergraduate Studies, Department of Economics responded September 6, 2016 in support of the ECON course options.
SOCIO: Laszlo Kulcsar, Department Head, Sociology, Anthropology and Social Work responded September 15, 2016 with an objection to dropping a SOCIO course from the curriculum. Kristy Archuleta responded on September 22, 2016 to Dr. Kulcsar with further explanation of the decision to drop the course to allow the curriculum to meet the requirements of the registration board (CFP Board). Dr. Kulcsar replied September 27, 2016 that even though he

understood the difficulty to juggle the conflicting pressures and the reasoning and current limits, but he still wanted "…my objection to be on record, the rest is on your program and college to handle."
FSHS and GNHE: Both are within the College of Human Ecology and were involved in the curriculum change discussions.

Effective: Spring 2017

College of Agriculture (11-2-16)

Undergraduate Non-expedited Course Changes (000-599)

Agricultural Economics

ADD: AGEC 470. Cooperative Management. (3) Fall. This course focuses on the unique aspects of the cooperative business model and its evolution over time. Students will utilize course material to gain a deeper understanding of the history and need for cooperatives by applying economic, finance, marketing, and management tools to cooperatives. Pre req.: AGEC 120 or AGEC 121 or ECON 120. K-State 8 – Historical Perspectives and Empirical and Quantitative Reasoning.

RATIONALE: KSU does not currently offer a course devoted to the study of cooperatives. Given many KSU graduates will work for a cooperatively owned and managed business, such as agricultural cooperatives, credit unions, and electric cooperatives, gaining a deeper understanding of cooperative management will be of great interest to KSU on campus and distance students.

K-STATE 8 TAG RATIONALE: Historical Perspectives is appropriate because this course has students study the history of cooperatives, the economic foundations that cooperatives were built upon, and then apply those lessons to today's cooperative environment. In addition, other cooperative forms that have evolved over time are studied such as New Generation Cooperatives.

Empirical and Quantitative Reasoning is appropriate because this course has students study the implications of financial and management decisions made by the cooperative on their patron-owners. A simulation model is used to reinforce these lessons by having students make decisions and to see how it impacts their cooperative. In addition, the students will complete assignments that has them research a topic and report back what they learned.

IMPACT: No negative impact to other programs.

EFFECTIVE DATE: Fall 2017

Food Science and Industry

ADD: FDSCI 310. Food Science Professional Preparation. (1) Spring
This course prepares students to pursue and be successful in food science careers. Students will develop professional resumes, identify internship and career opportunities, hone interviewing skills, examine standards of professionalism with respect to personal integrity and business ethics, and practice professional communication in oral and written formats.
Prerequisite: Open to Food Science Majors with Sophomore Standing

RATIONALE: As part of the "Core Food Science Courses" within the KSU Food Science undergraduate curriculum, students are currently required to take FDSCI 101 Foundations in Food Science (an orientation class for incoming freshmen) as well as FDSCI 500 Food Science Seminar (a "capstone-styled" course that addresses recent developments in the food science industry and in food science research; generally intended for seniors). Both courses (FDSCI 101 and FDSCI 500) provide students with some content related to professional career preparation, though this is not the primary intended focus of either course. Additionally, students have consistently indicated, both in FDSCI 500 course evaluation surveys and in senior exit interviews, that the career preparation information presented in FDSCI 500, though valuable, is not maximally effective because it is "too late"—that is, by the time students enroll in FDSCI 500 (typically as seniors) they have often already completed internships, participated in job interviews, and frequently already have received job offers. Students report a desire to receive more in-depth career preparation guidance, but suggest it would be much more useful if received earlier in their program, ideally in the second semester of their sophomore year. The course being proposed here, FDSCI 310 Food Science Professional Preparation, is therefore intended specifically to address and respond to this feedback from students.

The primary purpose of this proposed FDSCI 310 course is to prepare and equip students to pursue and be successful in food science careers. Students will develop professional resumes, identify internship and career opportunities, hone interviewing skills, examine standards of professionalism with respect to personal integrity and business ethics, and practice professional communication in oral and written formats.

IMPACT: No impact on other departments.

EFFECTIVE DATE: Fall 2017

Horticulture and Natural Resources

FROM:	HORT 595. Horticulture Study Abroad. (3). Fall, Spring, Summer. Seminar and travel course designed to prepare students before an international study abroad experience focused on horticulture. *Upon completion of travel*, students will analyze, critique, and report their experiences. Pre-requisite: Instructor permission. Repeatable. K-State 8: Global Issues.
TO:	HORT 595. Horticulture Study Abroad. (3). Fall, Spring, Summer. Seminar and travel course designed to prepare students before an international study abroad experience focused on horticulture. Upon completion of travel, students will analyze, critique, and report their experiences. In addition, students will be introduced and immersed in historical components, both disciplinary and culturally. Pre-requisite: Instructor permission. Repeatable. K-State 8: Global Issues and Perspectives; and Historical Perspectives.
RATIONALE:	We propose adding the Historical Perspective K-State 8 tag to the current Global Issues and Perspectives tag. A major component to the study abroad trips is for students to gain, first hand, a deeper understanding and knowledge about the global horticulture industry in the specific country(ies) visited. Through this course, students are readily exposed to significant historical horticulture components, in addition to a more broad exposure to historical concepts of the location(s) and region(s) visited. Moreover, the addition of this tag will provide an opportunity for Horticulture students to obtain the Historical tag, which can sometimes be challenging if a student doesn't complete a course with the specific tag through their Humanities course electives.
IMPACT:	No impacts outside the College.
EFFECTIVE DATE:	Fall 2017

ADD	WOEM 562. Advanced Wildlife Habitat Management. (4) Fall. Theory and practice of managing terrestrial and aquatic vegetation for wildlife production. Pr BIOL 433. K-State 8: None.
RATIONALE	Current course offerings that include habitat management instruction provide an introduction to managing wildlife habitat, and offer little hands-on experience. The proposed course would provide in-depth classroom content on evaluating and managing native and non-native vegetation for specific wildlife management outcomes, and hands-on field experience in habitat management techniques.
IMPACT	Wildlife and Outdoor Enterprise Management faculty met with Fisheries, Wildlife, and Conservation Biology faculty to discuss proposed changes in March of 2016. Both parties approve of this change.
EFFECTIVE DATE:	Fall 2017

Undergraduate Curriculum Changes

Agricultural Economics Major: Quantitative Option

FROM:	TO:
Quantitative Option	**Quantitative Option**
Agricultural Economics (18 credit hours)	*Agricultural Economics (18 credit hours)*
AGEC 105 - Agricultural Economics and Agribusiness Orientation **Credits:** 1	AGEC 105 - Agricultural Economics and Agribusiness Orientation **Credits:** 1
AGEC 115 - Decision Tools for Agricultural Economics and Agribusiness **Credits:** 2	AGEC 115 - Decision Tools for Agricultural Economics and Agribusiness **Credits:** 2
AGEC 120 - Agricultural Economics and Agribusiness **Credits:** 3	AGEC 120 - Agricultural Economics and Agribusiness **Credits:** 3
or	or
AGEC 121 - Honors Agricultural Economics and Agribusiness **Credits:** 3	AGEC 121 - Honors Agricultural Economics and Agribusiness **Credits:** 3
AGEC 315 - Contemporary Issues in Global Food and Agricultural Systems **Credits:** 3	AGEC 315 - Contemporary Issues in Global Food and Agricultural Systems **Credits:** 3
AGEC 500 - Production Economics **Credits:** 3	AGEC 500 - Production Economics **Credits:** 3
AGEC 501 - Data Analysis and Optimization **Credits:** 3	AGEC 501 - Data Analysis and Optimization **Credits:** 3
AGEC 505 - Agricultural Market Structures **Credits:** 3	AGEC 505 - Agricultural Market Structures **Credits:** 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 **Credits:** 3	AGEC 308 - Farm and Ranch Management **Credits:** 3
AGEC 318 - Food and Agribusiness Management **Credits:** 3	AGEC 318 - Food and Agribusiness Management **Credits:** 3
AGEC 410 - Agricultural Policy **Credits:** 3	AGEC 410 - Agricultural Policy **Credits:** 3
AGEC 420 - Commodity Futures **Credits:** 3	AGEC 420 - Commodity Futures **Credits:** 3
AGEC 460 - International Food and Agribusiness Study Tour **Credits:** 0-6 (Limit 3 credit hours)	AGEC 460 - International Food and Agribusiness Study Tour **Credits:** 0-6 (Limit 3 credit hours)
AGEC 513 - Agricultural Finance **Credits:** 3	AGEC 513 - Agricultural Finance **Credits:** 3
AGEC 515 - Food and Agribusiness Marketing **Credits:** 3	AGEC 515 - Food and Agribusiness Marketing **Credits:** 3
AGEC 516 - Agricultural Law and Economics **Credits:** 3	AGEC 516 - Agricultural Law and Economics **Credits:** 3
AGEC 520 - Market Fundamentals and Futures/Options Trading **Credits:** 3	AGEC 520 - Market Fundamentals and Futures/Options Trading **Credits:** 3
AGEC 525 - Natural Resource and Environmental Economics **Credits:** 3	AGEC 525 - Natural Resource and Environmental Economics **Credits:** 3
AGEC 570 - Food Manufacturing, Distribution and Retailing **Credits:** 3	AGEC 570 - Food Manufacturing, Distribution and Retailing **Credits:** 3
AGEC 598 - Farm Management Strategies **Credits:** 3	AGEC 598 - Farm Management Strategies **Credits:** 3
AGEC 599 - Food and Agribusiness Management Strategies **Credits:** 3	AGEC 599 - Food and Agribusiness Management Strategies **Credits:** 3
AGEC 605 - Price Analysis and Forecasting **Credits:** 3	AGEC 605 - Price Analysis and Forecasting **Credits:** 3
AGEC 610 - Current Agriculture and Natural Resource Policy Issues **Credits:** 3	AGEC 610 - Current Agriculture and Natural Resource Policy Issues **Credits:** 3
AGEC 615 - Global Agricultural Development **Credits:** 3	AGEC 615 - Global Agricultural Development **Credits:** 3
AGEC 623 - International Agricultural Trade **Credits:** 3	AGEC 623 - International Agricultural Trade **Credits:** 3
AGEC 632 - Agribusiness Logistics **Credits:** 3	AGEC 632 - Agribusiness Logistics **Credits:** 3
AGEC 680 - Risk Management **Credits:** 3	AGEC 680 - Risk Management **Credits:** 3

AGEC 710 - Comparative Food and Agriculture Systems **Credits:** 3 AGEC 712 - Optimization Techniques for Agricultural Economics **Credits:** 3 ~~ECON 631 - Principles of Transportation **Credits:** 3~~ GENAG 515 - Honors/Scholars Project **Credits:** 2 *Agricultural and Food Science Technology ~~Restricted~~ Electives (6 credit hours)* AGRON 220 - Crop Science **Credits:** 4 or HORT 201 - Principles of Horticultural Science **Credits:** 4 AGRON 305 - Soils **Credits:** 4 AGRON 330 - Weed Science **Credits:** 3 ASI 102 - Principles of Animal Science **Credits:** 3 ASI 105 - Animal Sciences and Industry **Credits:** 1 ASI 106 - Dairy and Poultry Science **Credits:** 1 ASI 318 - Fundamentals of Nutrition **Credits:** 3 ASI 320 - Principles of Feeding **Credits:** 3 ATM 160 - Engineered Systems and Technology in Agriculture **Credits:** 3 FDSCI 302 - Introduction to Food Science **Credits:** 3 FDSCI 305 - Fundamentals of Food Processing **Credits:** 3 GRSC 101 - Introduction to Grain Science and Industry **Credits:** 3 See department list for other courses. *Communication (14 credit hours)* COMM 105 - Public Speaking IA **Credits:** 2 ENGL 100 - Expository Writing I **Credits:** 3 ENGL 200 - Expository Writing II **Credits:** 3 Communication Elective **Credits:** 3 Select from: English (above 200), Communication studies (above 300) or a modern language AGCOM 400 - Agricultural Business Communications **Credits:** 3 or ENGL 516 - Written Communication for the Sciences **Credits:** 3 *Economics/Business (12 credit hours)* ACCTG 231 - Accounting for Business Operations **Credits:** 3 ACCTG 241 - Accounting for Investing and Financing **Credits:** 3 ECON 110 - Principles of Macroeconomics **Credits:** 3 ECON 510 - Intermediate Macroeconomics **Credits:** 3 *Finance Overlay* AGEC 513 - Agricultural Finance **Credits:** 3 or FINAN 450 - Principles of Finance **Credits:** 3	AGEC 710 - Comparative Food and Agriculture Systems **Credits:** 3 AGEC 712 - Optimization Techniques for Agricultural Economics **Credits:** 3 GENAG 515 - Honors/Scholars Project **Credits:** 2 *Agricultural and Food Science Technology Electives (6 credit hours)* AGRON 220 - Crop Science **Credits:** 4 or HORT 201 - Principles of Horticultural Science **Credits:** 4 AGRON 305 - Soils **Credits:** 4 AGRON 330 - Weed Science **Credits:** 3 ASI 102 - Principles of Animal Science **Credits:** 3 ASI 105 - Animal Sciences and Industry **Credits:** 1 ASI 106 - Dairy and Poultry Science **Credits:** 1 ASI 318 - Fundamentals of Nutrition **Credits:** 3 ASI 320 - Principles of Feeding **Credits:** 3 ATM 160 - Engineered Systems and Technology in Agriculture **Credits:** 3 FDSCI 302 - Introduction to Food Science **Credits:** 3 FDSCI 305 - Fundamentals of Food Processing **Credits:** 3 GRSC 101 - Introduction to Grain Science and Industry **Credits:** 3 See department list for other courses. *Communication (14 credit hours)* COMM 105 - Public Speaking IA **Credits:** 2 ENGL 100 - Expository Writing I **Credits:** 3 ENGL 200 - Expository Writing II **Credits:** 3 Communication Elective **Credits:** 3 Select from: English (above 200), Communication studies (above 300) or a modern language AGCOM 400 - Agricultural Business Communications **Credits:** 3 or ENGL 516 - Written Communication for the Sciences **Credits:** 3 *Economics/Business (12 credit hours)* ACCTG 231 - Accounting for Business Operations **Credits:** 3 ACCTG 241 - Accounting for Investing and Financing **Credits:** 3 ECON 110 - Principles of Macroeconomics **Credits:** 3 ECON 510 - Intermediate Macroeconomics **Credits:** 3 *Finance Overlay* AGEC 513 - Agricultural Finance **Credits:** 3 or FINAN 450 - Principles of Finance **Credits:** 3

Mathematics/Statistics (25 credit hours) ~~CIS 200 - Programming Fundamentals **Credits:** 4~~ MATH 220 - Analytic Geometry and Calculus I **Credits:** 4 MATH 221 - Analytic Geometry and Calculus II **Credits:** 4 MATH 222 - Analytic Geometry and Calculus III **Credits:** 4 MATH 551 - Applied Matrix Theory **Credits:** 3 STAT 350 - Business and Economic Statistics I **Credits:** 3 and STAT 351 - Business and Economic Statistics II **Credits:** 3 or STAT 510 - Introductory Probability and Statistics I **Credits:** 3 and STAT 511 - Introductory Probability and Statistics II **Credits:** 3	*Mathematics/Statistics (24 credit hours)* CIS 111 – Introduction to Computer Programming **Credits:** 3 MATH 220 - Analytic Geometry and Calculus I **Credits:** 4 MATH 221 - Analytic Geometry and Calculus II **Credits:** 4 MATH 222 - Analytic Geometry and Calculus III **Credits:** 4 MATH 551 - Applied Matrix Theory **Credits:** 3 STAT 350 - Business and Economic Statistics I **Credits:** 3 and STAT 351 - Business and Economic Statistics II **Credits:** 3 or STAT 510 - Introductory Probability and Statistics I **Credits:** 3 and STAT 511 - Introductory Probability and Statistics II **Credits:** 3
Natural Sciences (8 credit hours) Select a combination of 2 courses for a total of 8 credit hours. BIOL 198 - Principles of Biology **Credits:** 4 CHM 110 - General Chemistry **Credits:** 3 and CHM 111 - General Chemistry Laboratory **Credits:** 1 PHYS 113 - General Physics I **Credits:** 4	*Natural Sciences (8 credit hours)* Select a combination of 2 courses for a total of 8 credit hours. BIOL 198 - Principles of Biology **Credits:** 4 CHM 110 - General Chemistry **Credits:** 3 and CHM 111 - General Chemistry Laboratory **Credits:** 1 PHYS 113 - General Physics I **Credits:** 4
Quantitative Electives (6 credit hours) AGEC 605 - Price Analysis and Forecasting **Credits:** 3 AGEC 712 - Optimization Techniques for Agricultural Economics **Credits:** 3 ECON 630 - Introduction to Econometrics **Credits:** 3 ECON 735 - Mathematical Economics **Credits:** 3 IMSE 541 - Statistical Quality Control **Credits:** 3 IMSE 560 - Introduction to Operations Research I **Credits:** 3 MATH 240 - Elementary Differential Equations **Credits:** 4 MATH 312 - Finite Applications of Mathematics **Credits:** 3 MATH 540 - Advanced Ordinary Differential Equations **Credits:** 3 MATH 670 - Mathematical Modeling **Credits:** 3 MATH 755 - Dynamic Modeling Processes **Credits:** 3 MANGT 421 - Introduction to Operations Management **Credits:** 3 MANGT 521 - Quantitative Management **Credits:** 3 MKTG 642 - Marketing Research **Credits:** 3	*Quantitative Electives (6 credit hours)* AGEC 605 - Price Analysis and Forecasting **Credits:** 3 AGEC 712 - Optimization Techniques for Agricultural Economics **Credits:** 3 ECON 630 - Introduction to Econometrics **Credits:** 3 ECON 686 – Economic Forecasting **Credits:** 3 ECON 735 - Mathematical Economics **Credits:** 3 GEOG 508 – Geographic Information Systems 1 **Credits:** 3 IMSE 541 - Statistical Quality Control **Credits:** 3 IMSE 560 - Introduction to Operations Research I **Credits:** 3 MATH 240 - Elementary Differential Equations **Credits:** 4 MATH 312 - Finite Applications of Mathematics **Credits:** 3 MATH 540 - Advanced Ordinary Differential Equations **Credits:** 3 MATH 670 - Mathematical Modeling **Credits:** 3 MATH 755 - Dynamic Modeling Processes **Credits:** 3

STAT 410 - Probabilistic Systems Modeling **Credits:** 3 STAT 705 - Regression and Analysis of Variance **Credits:** 3 STAT 706 - Basic Elements of Statistical Theory **Credits:** 3	MANGT 421 - Introduction to Operations Management **Credits:** 3 MANGT 521 - Quantitative Management **Credits:** 3 MKTG 642 - Marketing Research **Credits:** 3 STAT 410 - Probabilistic Systems Modeling **Credits:** 3 STAT 705 - Regression and Analysis of Variance **Credits:** 3 STAT 706 - Basic Elements of Statistical Theory **Credits:** 3
Social Sciences/Humanities (~~12~~ credit hours) Social Science Elective **Credits:** 3 Select from Psychology, Sociology, Political Science, Anthropology, History, Geography, Gender, Women, and Sexuality Studies, or American Ethnic Studies or FSHS 350 - Family Relationships and Gender Roles **Credits:** 3 ~~PHILO 135 - Introduction to Social and Political Philosophy **Credits:** 3~~ PSYCH 110 - General Psychology **Credits:** 3 or SOCIO 211 - Introduction to Sociology **Credits:** 3 ~~Humanities Elective **Credits:** 3~~ ~~Select from History, Music, Art, English (above 210), Philosophy, Theatre, Dance, Modern Language~~ ~~or~~ ~~ARCH 301 - Appreciation of Architecture **Credits:** 3~~	*Social Sciences/Humanities (9 credit hours)* Social Science Elective **Credits:** 3 Select from Psychology, Sociology, Political Science, Anthropology, History, Geography, Gender, Women, and Sexuality Studies, or American Ethnic Studies or FSHS 350 - Family Relationships and Gender Roles **Credits:** 3 PHILO 110 - Introduction to Formal Logic **Credits:** 3 PSYCH 110 - General Psychology **Credits:** 3 or SOCIO 211 - Introduction to Sociology **Credits:** 3
Unrestricted electives as needed to meet 127 credit hours	*Unrestricted electives as needed to meet 127 credit hours*
Total credit hours required for graduation: (127)	*Total credit hours required for graduation: (127)*
Must satisfy K-State 8 general education requirements.	Must satisfy K-State 8 general education requirements.

RATIONALE: PHILO 110 Intro to Formal Logic is a better fit for quantitative reasoning than PHILO 135 Intro to Social & Political Philosophy, and PHILO 110 is also required in the Pre-law Specialty Option. CIS 200 has changed and is now a course intended primarily only for CIS majors, so enrollment is limited and the course has additional pre-requisites. Instructors in CIS recommend CIS 111 as the appropriate course for our students in the Quantitative Option. Geographic Information Systems are an important and interesting quantitative area. Including GEOG 508 in the Quantitative Electives block provides students the opportunity to pursue additional quantitative knowledge and skill in this field. ECON 686 is an appropriate course to be included in the Quantitative Electives block and provides students another course option.

The other changes to the Curriculum Guide form are clean-up items and a typographical error. The Social Science/Humanities credits listed as 12 is a typo and should be 9 just like in all of our other options. This change was made several years ago to all options. PHILO 110 is specified as the 3 credits of Humanities for students. ECON 631 is not supposed to be listed as an AGEC elective in the Quantitative Option and needs to be removed in the catalog as such.

IMPACT: There is little expected impact on PHILO, CIS, ECON, and GEOG as the Quantitative Option typically only has two students per class standing in it. PHILO 110 is typically offered fall, spring, and summer; CIS 111 is typically offered fall and spring. GEOG 508 and its pre-requisite of GEOG 302 are typically only offered one time per year, but since it is used as only a Quantitative Elective, it is not expected that both students in each class standing would select this course. The Departments of Philosophy (via email to Bruce Glymour 8/30/2016), Computer Science (via email Scott DeLoach 8/30/016), Geography (via email to Charles Martin 8/30/2016), and Economics (via email William Blankenau 8/30/016) have been consulted and indicate they are fine with the proposed changes (via return emails on 8/30/2016, 8/30/2016, 8/31/2016, and 8/30/2016, respectively).

EFFECTIVE DATE: Fall 2017

Grain Science and Industry

Bakery Science and Management (B.S.) - Cereal Chemistry Option

FROM:	TO:	
~~**GENERAL REQUIREMENTS**~~ ACCTG 231 - Accounting for Business Operations **Credits:** 3 BIOCH 521 - General Biochemistry **Credits:** 3 BIOCH 522 - General Biochemistry Laboratory **Credits:** 2 BIOL 198 - Principles of Biology **Credits:** 4 BIOL 455 - General Microbiology **Credits:** 4 CHM 210 - Chemistry I **Credits:** 4 CHM 230 - Chemistry II **Credits:** 4 CHM 500 - General Physical Chemistry **Credits:** 3 CHM 531 - Organic Chemistry I **Credits:** 3 CHM 532 - Organic Chemistry Laboratory **Credits:** 2 CHM 550 - Organic Chemistry II **Credits:** 3 COMM 105 - Public Speaking IA **Credits:** 2 AGCOM 400 - Agricultural Business Communications **Credits:** 3 or ENGL 516 - Written Communication for the Sciences **Credits:** 3 ECON 110 - Principles of Macroeconomics **Credits:** 3 ENGL 100 - Expository Writing I **Credits:** 3 ENGL 200 - Expository Writing II **Credits:** 3 FDSCI 501 - Food Chemistry **Credits:** 3 FDSCI 600 - Food Microbiology **Credits:** 2 FDSCI 601 - Food Microbiology Lab **Credits:** 2 FDSCI 727 - Chemical Methods of Food Analysis **Credits:** 2 FNDH 132 - Basic Nutrition **Credits:** 3 GRSC 100 - ~~Grain Science & Industry~~ Orientation **Credits:** 1 GRSC 101 - Introduction to Grain Science and Industry **Credits:** 3 GRSC 150 - Principles of Milling **Credits:** 2 GRSC 151 - Principles of Milling Laboratory **Credits:** 1 GRSC 310 - Materials Handling **Credits:** 3 GRSC 591 - Internship in Grain Science **Credits:** 1	**NATURAL SCIENCES (26 credit hours)** BIOL 198 - Principles of Biology Credits: 4 BIOL 455 - General Microbiology Credits: 4 CHM 210 - Chemistry I Credits: 4 CHM 230 - Chemistry II Credits: 4 PHYS 213 - Engineering Physics I Credits: 5 PHYS 214 - Engineering Physics II Credits: 5 **QUANTITATIVE STUDIES (11 credit hours)** MATH 220 - Analytic Geometry and Calculus I Credits: 4 MATH 221 - Analytic Geometry and Calculus II Credits: 4 STAT 325 - Introduction to Statistics Credits: 3 **COMMUNICATIONS (11 credit hours)** ENGL 100 - Expository Writing I Credits: 3 ENGL 200 - Expository Writing II Credits: 3 COMM 105 - Public Speaking IA Credits: 2 *Communication elective (choose one):* AGCOM 400 - Agricultural Business Communications Credits: 3 ENGL 516 - Written Communication for the Sciences Credits: 3 COMM 311 - Business and Professional Speaking Credits: 3 **BUSINESS AND ECONOMICS (9 credit hours)** ECON 110 - Principles of Macroeconomics Credits: 3 ACCTG 231 - Accounting for Business Operations Credits: 3 *Management Elective (choose one):* GRSC 530 - Management Applications in Grain Processing Industries Credits: 3 MANGT 420 - Management Concepts Credits: 3 MANGT 530 - Industrial and Labor Relations Credits: 3 MANGT 531 - Human Resources Management Credits: 3 **BAKERY SCIENCE CORE REQUIREMENTS (38 credit hours)** FDSCI 600 - Food Microbiology Credits: 2	**(1)** **(2)** **(3)** **(4)**

GRSC 600 - Practicum in Bakery Technology I **Credits:** 1 GRSC 601 - Practicum in Bakery Technology II **Credits:** 1 GRSC 602 - Cereal Science **Credits:** 3 GRSC 625 - Flour and Dough Testing **Credits:** 3 GRSC 635 - Baking Science I **Credits:** 2 GRSC 636 - Baking Science I Laboratory **Credits:** 2 GRSC 637 - Baking Science II **Credits:** 3 GRSC 638 - Baking Science II Laboratory **Credits:** 1 GRSC 651 - Food and Feed Product Protection **Credits:** 4 GRSC 670 - Bakery Layout **Credits:** 1 MATH 220 - Analytic Geometry and Calculus I **Credits:** 4 MATH 221 - Analytic Geometry and Calculus II **Credits:** 4 PHYS 213 - Engineering Physics I **Credits:** 5 PHYS 214 - Engineering Physics II **Credits:** 5 STAT 325 - Introduction to Statistics **Credits:** 3 Free Elective **Credits:** 3 Social Sciences and Humanities **Credits:** 3 Specialization Elective **Credits:** ~~8~~	FDSCI 601 - Food Microbiology Lab Credits: 2 FNDH 132 - Basic Nutrition Credits: 3 GRSC 100 - Freshman Orientation in Grain Science Credits: 1 GRSC 101 - Introduction to Grain Science and Industry Credits: 3 GRSC 150 - Principles of Milling Credits: 2 GRSC 151 - Principles of Milling Laboratory Credits: 1 GRSC 310 - Materials Handling Credits: 3 GRSC 591 - Internship in Grain Science Credits: 1 GRSC 600 - Practicum in Bakery Technology I Credits: 1 or GRSC 601 - Practicum in Bakery Technology II Credits: 1 GRSC 602 - Cereal Science Credits: 3 GRSC 625 - Flour and Dough Testing Credits: 3 GRSC 635 - Baking Science I Credits: 2 GRSC 636 - Baking Science I Laboratory Credits: 2 GRSC 637 - Baking Science II Credits: 3 GRSC 638 - Baking Science II Laboratory Credits: 1 GRSC 651 - Food and Feed Product Protection Credits: 4 GRSC 670 - Bakery Layout Credits: 1 **CEREAL CHEMISTRY OPTION REQUIREMENTS (27 credit hours)** BIOCH 521 - General Biochemistry Credits: 3 BIOCH 522 - General Biochemistry Laboratory Credits: 2 CHM 500 - General Physical Chemistry Credits: 3 CHM 531 - Organic Chemistry I Credits: 3 CHM 532 - Organic Chemistry Laboratory Credits: 2 CHM 550 - Organic Chemistry II Credits: 3 FDSCI 501 - Food Chemistry Credits: 3 FDSCI 727 - Chemical Methods of Food Analysis Credits: 2 Specialization Electives Credits: 6	**(5)**
Specialization Electives	**Specialization Electives (Choose from the following)**	**(6)**
FDSCI 690 - Principles of HACCP and HARPC Credits: 3 GRSC 201 - Fundamental Baking Calculations Credits: 1 GRSC 491 - Faculty-Led Study Abroad Credits: 1-3 GRSC 499 - Undergraduate Research in Grain Science Credits: 0-3 ~~GRSC 500 - Milling Science I Credits: 2~~ ~~GRSC 501 - Milling Science I Laboratory Credits: 2~~ GRSC 540 - ~~Engineering Applications to Grain/Food Products~~ Credits: 3 GRSC 541 - ~~Engineering Applications to Grain/Food Products~~ Laboratory Credits: 1 GRSC 560 - Electricity and ~~Its Control for the Grain Processing Industry~~ Credits: 3	CHM 371 - Chemical Analysis Credits: 4 FDSCI 690 - Principles of HACCP and HARPC Credits: 3 FDSCI 710 - Kosher and Halal Food Regulations Credits: 2 FDSCI 728 - Physical Methods of Food Analysis Credits: 2 FDSCI 740 - Research and Development of Food Products Credits: 4 FDSCI 751 - Food Laws and the Regulatory Process Credits: 2 GRSC 201 - Fundamental Baking Calculations Credits: 1 GRSC 491 - Faculty-Led Study Abroad Credits: 1-3 GRSC 499 - Undergraduate Research in Grain Science Credits: 0-3 GRSC 530 - Management Applications in Grain Processing Industries Credits: 3 GRSC 540 - Process Calculations in Food Systems Credits: 3 GRSC 541 - Process Calculations in Food Systems Laboratory Credits: 1 GRSC 560 - Electricity and Industrial Power Distribution Credits: 3	

GRSC 592 - Extended Internship in Grain Science Credits: 1 GRSC 620 - Extrusion Processing in the Food and Feed Industries Credits: 4 GRSC 712 - Vibrational Spectroscopic Analysis and Chemometrics Credits: 1-2 GRSC 713 - Contemporary Chromatographic Analysis of Food Credits: 1 GRSC 745 - Fundamentals of Bioprocessing Credits: 3 LEAD 212 - Introduction to Leadership Concepts Credits: 2-3 ~~(enroll for 2 credit hours)~~	GRSC 592 - Extended Internship in Grain Science Credits: 1 GRSC 620 - Extrusion Processing in the Food and Feed Industries Credits: 4 GRSC 712 - Vibrational Spectroscopic Analysis and Chemometrics Credits: 1-2 GRSC 713 - Contemporary Chromatographic Analysis of Food Credits: 1 GRSC 745 - Fundamentals of Bioprocessing Credits: 3 LEAD 212 - Introduction to Leadership Concepts Credits: 2-3 LEAD 350 - Culture and Context in Leadership Credits: 3 MANGT 420 - Management Concepts Credits: 3 MANGT 530 - Industrial and Labor Relations Credits: 3 MANGT 531 - Human Resources Management Credits: 3	
FREE ELECTIVE Credits: 3	**FREE ELECTIVE Credits: 3**	
SOCIAL SCIENCES AND HUMANITIES Credits: 3	**SOCIAL SCIENCES AND HUMANITIES Credits: 3** AMETH – AMETH 160 to 501 ANTH – Any course ARCH – ARCH 301 ART – Any course COMM – COMM 320 to 535 DANCE – Any course DEN – DEN 325, 450 ECON - ECON 120 to 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, 655, 670, 671 FSHS – Any course GEOG – GEOG 100, 200, 201, 300 to 799 GWSS – Any course HIST – Any course Modern Language – Any course MUSIC – Any course PHILO – Any course POLSC – Any course PSYCH – Any course SOCIO – Any course SOCWK – Any course THTRE – Any course	
NOTE ~~Six of the hours must be from classes at the 300 level or above. Requirements for transfer students vary depending on transfer hours accepted by K-State.~~ ~~Must satisfy K-State 8 general education requirements.~~	**NOTE** - Up to half of the credits required for a four-year degree may be completed at an accredited two-year institution. - Each student must complete at least 30 K-State resident credits to be considered for a degree from K-State. A student must complete 20 of the last 30 hours of resident credits through K-State. In other words, no more than 10 hours of transfer credit hours may be applied toward the last 30 hours you take for your degree. - A minimum of 45 hours must be taken at the course level of 300 or above. Each student must satisfy K-State 8 general education requirements. K-State 8 can be met by both K-State and transfer courses.	**(7)**
Total credit hours required for graduation: (128)	**Total credit hours required for graduation: (128)**	

RATIONALE:

(1) Further *course categorization* was made. Current curriculum does not have categories that are descriptive of the requirements. "General requirements" overall category has been replaced with several specific categories and titled as "natural sciences", "quantitative studies", "communications", business and economics", bakery science core requirements", and "cereal chemistry option requirements".

(2) A *communication elective block* has been added. This expands the choices available to students as well as increasing their ability to fit a communication elective in their schedules.

(3) A *management elective block* was added. BSM-CC majors did not have any room for taking management/business courses. This elective block adds flexibility to students' selection of management electives as well as adding uniformity to the management electives required across all three departmental majors.

(4) Students are now required to take *one practicum* instead of two. AIB practicum is extremely enrolment limited. This plus the fact students generally gain experience in the material covered in one of the practicums as part of their internship makes it unnecessary to enroll in both.

(5) Specialization electives were dropped from 8-hours to 6-hours. This two-hour credit saving along with one-hour saved from practicum, total of three-hours, were used to add a three-hour management elective as explained above.

(6) Several new courses were added to the *Specialization Electives*: CHM 371, FDSCI 710, 728, 740, 751, LEAD 350, and the entire list of Management electives.
These FDSCI courses are often taken by our students through course variance requests. This change will help to minimize future course variances.
LEAD 350 will provide another option for our students to fulfill the global issues and diversity section of the K-State 8.
CHM 371 was added back to the specialization electives. This course covers principles of quantitative analysis including the gravimetric, titrimetric, spectrophotometric, electroanalytical, and separations methods. This will provide good foundational skills to the students majoring in BSM-CC.
The courses listed under Management electives were also added to this section so that the students may utilize their unused management electives as specialization electives.
GRSC 500 and 501 were deleted from the specialization electives. BSM students rarely, if ever, enroll in either GRSC 500 or 501. As neither course is utilized as a specialization elective, their presence on that list is unnecessary.

(7) *Graduation requirements* were summarized in this section to provide quick guidelines for the advisors and the students.

(8) *Other changes***.** There are several corrections made due to "course title" changes which are concurrently addressed in Fall 2016 GSI course proposals.

IMPACT:

(1), (4), (5), (7), and (8). No impact on other departments.

(2), (3), (6). The following Department Heads were contacted on October 3, 2016 regarding the proposed curriculum changes.

BUS (Dr. Chwen Sheu, csheu@ksu.edu and CBA Office of Student Services, cbastusv@ksu.edu) – Dr. Sheu responded that the Department of Management supports the use of ENTRP 340.

CHM (Dr. Eric Maatta, eam@ksu.edu) - He responded in support of the use of all proposed Chemistry courses, but noted that CHEM 371 tends to have excessive demand in the Fall semesters, but that ample space is available in the spring terms.

COMM (Dr. Tim Steffensmeier, steffy@ksu.edu) - He responded in support of the use of COMM 106 and COMM 311.

LEAD (Dr. Mary Hale Tolar, mtolar@ksu.edu) - She responded in support of the use of LEAD 212 and 350.

MANGT (Dr. Bill Turnley, turnley@ksu.edu) was contacted on October 3, 2016. No response has been received to date.

EFFECTIVE DATE:

Fall 2017

Bakery Science and Management (B.S.) - Production Management Option

FROM:	TO:	
~~**GENERAL REQUIREMENTS:**~~ ACCTG 231 - Accounting for Business Operations **Credits:** 3 AGEC 120 - Agricultural Economics and Agribusiness **Credits:** 3 or ECON 120 - Principles of Microeconomics **Credits:** 3 AGCOM 400 - Agricultural Business Communications **Credits:** 3 ~~or~~ ENGL 516 - Written Communication for the Sciences **Credits:** 3 BIOCH 265 - Introductory Organic and Biochemistry **Credits:** 5 or CHM 350 - General Organic Chemistry **Credits:** 3 and CHM 351 - General Organic Chemistry Laboratory **Credits:** 2 BIOL 198 - Principles of Biology **Credits:** 4 BIOL 455 - General Microbiology **Credits:** 4 CHM 210 - Chemistry I **Credits:** 4 CHM 230 - Chemistry II **Credits:** 4 COMM 106 - Public Speaking I **Credits:** 3 ECON 110 - Principles of Macroeconomics **Credits:** 3 ENGL 100 - Expository Writing I **Credits:** 3 ENGL 200 - Expository Writing II **Credits:** 3 FDSCI 305 - Fundamentals of Food Processing **Credits:** 3 FDSCI 600 - Food Microbiology **Credits:** 2 FDSCI 601 - Food Microbiology Lab **Credits:** 2 FNDH 132 - Basic Nutrition **Credits:** 3 GRSC 100 - Grain Science & Industry Orientation **Credits:** 1 GRSC 101 - Introduction to Grain Science and Industry **Credits:** 3 GRSC 150 - Principles of Milling **Credits:** 2 GRSC 151 - Principles of Milling Laboratory **Credits:** 1 GRSC 210 - CAD Flow Sheets for Grain Processes **Credits:** 3 GRSC 310 - Materials Handling **Credits:** 3 GRSC 530 - Management Applications in the Grain Processing Industries **Credits:** 3 GRSC 540 - Engineering Applications to Grain/Food Products **Credits:** 3 GRSC 541 - Engineering Applications to Grain/Food Products Laboratory **Credits:** 1 GRSC 591 - Internship in Grain Science **Credits:** 1 GRSC 600 - Practicum in Bakery Technology I **Credits:** 1 GRSC 601 - Practicum in Bakery Technology II **Credits:** 1	**NATURAL SCIENCES (29 credit hours)** CHM 210 - Chemistry I Credits: 4 CHM 230 - Chemistry II Credits: 4 BIOCH 265 - Introductory Organic and Biochemistry Credits: 5 or CHM 350 - General Organic Chemistry Credits: 3 and CHM 351 - General Organic Chemistry Laboratory Credits: 2 BIOL 198 - Principles of Biology Credits: 4 BIOL 455 - General Microbiology Credits: 4 PHYS 113 - General Physics I Credits: 4 PHYS 114 - General Physics II Credits: 4 **QUANTITATIVE STUDIES (6 credit hours)** MATH 205 - General Calculus and Linear Algebra Credits: 3 STAT 325 - Introduction to Statistics Credits: 3 **COMMUNICATIONS (12 credit hours)** ENGL 100 - Expository Writing I Credits: 3 ENGL 200 - Expository Writing II Credits: 3 COMM 106 - Public Speaking I Credits: 3 *Communication elective (choose one):* AGCOM 400 Agricultural Business Communications Credits: 3 ENGL 516 Written Communication for the Sciences Credits: 3 COMM 311 Business and Professional Speaking Credits: 3 **BUSINESS AND ECONOMICS (21 credit hours)** ECON 110 - Principles of Macroeconomics Credits: 3 AGEC 120 - Agricultural Economics and Agribusiness Credits: 3	**(1)** **(2)**

GRSC 602 - Cereal Science **Credits:** 3 GRSC 625 - Flour and Dough Testing **Credits:** 3 GRSC 635 - Baking Science I **Credits:** 2 GRSC 636 - Baking Science I Laboratory **Credits:** 2 GRSC 637 - Baking Science II **Credits:** 3 GRSC 638 - Baking Science II Laboratory **Credits:** 1 GRSC 651 - Food and Feed Product Protection **Credits:** 4 GRSC 670 - Bakery Layout **Credits:** 1 MANGT 420 - Management Concepts **Credits:** 3 MATH 205 - General Calculus and Linear Algebra **Credits:** 3 PHYS 113 - General Physics I **Credits:** 4 PHYS 114 - General Physics II **Credits:** 4 STAT 325 - Introduction to Statistics **Credits:** 3 Business Electives **Credits:** 9 Free Electives **Credits:** 3 Specialization Electives **Credits:** 5	or ECON 120 - Principles of Microeconomics Credits: 3 ACCTG 231 - Accounting for Business Operations Credits: 3	
Business Elective (~~9~~ credit hours) ACCTG 241 - Accounting for Investing and Financing Credits: 3 ACCTG 331 - Intermediate Accounting Processes Credits: 3 AGEC 500 - Production Economics Credits: 3 AGEC 515 - Food and Agribusiness Marketing Credits: 3 FINAN 450 - Principles of Finance Credits: 3 IMSE 501 - Industrial Management Credits: 3 MANGT 300 - Introduction to Total Quality Management Credits: 1 MANGT 530 - Industrial and Labor Relations Credits: 3 MKTG 400 - Introduction to Marketing Credits: 3 MKTG 542 - Fundamentals of Professional Selling Credits: 3 ~~Additional Business Electives:~~ The following courses must be taken as business electives to complete requirements for a Business Minor while completing the Production Management Option: ACCTG 241 - Accounting for Investing and Financing Credits: 3 FINAN 450 - Principles of Finance Credits: 3 MKTG 400 - Introduction to Marketing Credits: 3	**Business Electives (12 credit hours):** ACCTG 241 - Accounting for Investing and Financing Credits: 3 ACCTG 331 - Intermediate Accounting Processes Credits: 3 AGEC 500 - Production Economics Credits: 3 AGEC 515 - Food and Agribusiness Marketing Credits: 3 FINAN 450 - Principles of Finance Credits: 3 GRSC 530 - Management Applications in Grain Processing Industries Credits: 3 IMSE 501 - Industrial Management Credits: 3 MANGT 300 - Introduction to Total Quality Management Credits: 1 MANGT 420 - Management Concepts Credits: 3 MANGT 530 - Industrial and Labor Relations Credits: 3 MANGT 531 - Human Resources Management Credits: 3 MKTG 400 - Introduction to Marketing Credits: 3 MKTG 542 - Fundamentals of Professional Selling Credits: 3 Note: The following courses must be taken as business electives to complete requirements for a Business Minor while completing the Production Management Option: ACCTG 241 - Accounting for Investing and Financing Credits: 3 FINAN 450 - Principles of Finance Credits: 3 MKTG 400 - Introduction to Marketing Credits: 3	**(3)**
FDSCI 600 - Food Microbiology Credits: 2 FDSCI 601 - Food Microbiology Lab Credits: 2 FNDH 132 - Basic Nutrition Credits: 3 GRSC 100 - ~~Grain Science & Industry~~ Orientation Credits: 1	**BAKERY SCIENCE CORE REQUIREMENTS (38 credit hours)** FDSCI 600 - Food Microbiology Credits: 2 FDSCI 601 - Food Microbiology Lab Credits: 2 FNDH 132 - Basic Nutrition Credits: 3 GRSC 100 - Freshman Orientation in Grain Science Credits: 1	

GRSC 101 - Introduction to Grain Science and Industry Credits: 3 GRSC 150 - Principles of Milling Credits: 2 GRSC 151 - Principles of Milling Laboratory Credits: 1 GRSC 310 - Materials Handling Credits: 3 GRSC 591 - Internship in Grain Science Credits: 1 GRSC 600 - Practicum in Bakery Technology I Credits: 1 GRSC 601 - Practicum in Bakery Technology II Credits: 1 GRSC 602 - Cereal Science Credits: 3 GRSC 625 - Flour and Dough Testing Credits: 3 GRSC 635 - Baking Science I Credits: 2 GRSC 636 - Baking Science I Laboratory Credits: 2 GRSC 637 - Baking Science II Credits: 3 GRSC 638 - Baking Science II Laboratory Credits: 1 GRSC 651 - Food and Feed Product Protection Credits: 4 GRSC 670 - Bakery Layout Credits: 1	GRSC 101 - Introduction to Grain Science and Industry Credits: 3 GRSC 150 - Principles of Milling Credits: 2 GRSC 151 - Principles of Milling Laboratory Credits: 1 GRSC 310 - Materials Handling Credits: 3 GRSC 591 - Internship in Grain Science Credits: 1 GRSC 600 - Practicum in Bakery Technology I Credits: 1 or GRSC 601 - Practicum in Bakery Technology II Credits: 1 GRSC 602 - Cereal Science Credits: 3 GRSC 625 - Flour and Dough Testing Credits: 3 GRSC 635 - Baking Science I Credits: 2 GRSC 636 - Baking Science I Laboratory Credits: 2 GRSC 637 - Baking Science II Credits: 3 GRSC 638 - Baking Science II Laboratory Credits: 1 GRSC 651 - Food and Feed Product Protection Credits: 4 GRSC 670 - Bakery Layout Credits: 1	**(4)**
FDSCI 305 - Fundamentals of Food Processing Credits: 3 ~~GRSC 210 - CAD Flow Sheets for Grain Processes Credits: 3~~ ~~GRSC 530 - Management Applications in the Grain Processing Industries Credits: 3~~ GRSC 540 - ~~Engineering Applications to Grain/Food Products~~ Credits: 3 ~~GRSC 541 - Engineering Applications to Grain/Food Products Laboratory Credits: 1~~ ~~MANGT 420 - Management Concepts Credits: 3~~ Specialization Electives Credits: ~~5~~	**PRODUCTION MANAGEMENT OPTION REQUIREMENTS (16 credit hours)** FDSCI 305 - Fundamentals of Food Processing Credits: 3 GRSC 405 - Grain Analysis Techniques Credits: 2 GRSC 540 - Process Calculations in Food Systems Credits: 3 Specialization Electives Credits: 8	**(5)**
Specialization Electives: FDSCI 690 - Principles of HACCP and HARPC Credits: 3 GRSC 201 - Fundamental Baking Calculations Credits: 1 GRSC 491 - Faculty-Led Study Abroad Credits: 1-3 GRSC 499 - Undergraduate Research in Grain Science Credits: 0-3 ~~GRSC 500 - Milling Science I Credits: 2~~ ~~GRSC 501 - Milling Science I Laboratory Credits: 2~~ GRSC 560 - Electricity and ~~Its Control for the Grain Processing Industry~~ Credits: 3	**Specialization Electives:** ACCTG 241 - Accounting for Investing and Financing Credits: 3 ACCTG 331 - Intermediate Accounting Processes Credits: 3 AGEC 500 - Production Economics Credits: 3 AGEC 515 - Food and Agribusiness Marketing Credits: 3 FDSCI 690 - Principles of HACCP and HARPC Credits: 3 FDSCI 710 - Kosher and Halal Food Regulations Credits: 2 FDSCI 728 - Physical Methods of Food Analysis Credits: 2 FDSCI 740 - Research and Development of Food Products Credits: 4 FDSCI 751 - Food Laws and the Regulatory Process Credits: 2 FINAN 450 - Principles of Finance Credits: 3 GRSC 201 - Fundamental Baking Calculations Credits: 1 GRSC 491 - Faculty-Led Study Abroad Credits: 1-3 GRSC 499 - Undergraduate Research in Grain Science Credits: 0-3 GRSC 530 - Management Applications in Grain Processing Industries Credits: 3 GRSC 560 - Electricity and Industrial Power Distribution Credits: 3	**(6)**

GRSC 592 - Extended Internship in Grain Science Credits: 1 GRSC 620 - Extrusion Processing in the Food and Feed Industries Credits: 4 GRSC 712 - Vibrational Spectroscopic Analysis and Chemometrics Credits: 1-2 GRSC 713 - Contemporary Chromatographic Analysis of Food Credits: 1 GRSC 745 - Fundamentals of Bioprocessing Credits: 3 LEAD 212 - Introduction to Leadership Concepts Credits: 2-3 ~~(enroll for 2 credits)~~	GRSC 592 - Extended Internship in Grain Science Credits: 1 GRSC 620 - Extrusion Processing in the Food and Feed Industries Credits: 4 GRSC 712 - Vibrational Spectroscopic Analysis and Chemometrics Credits: 1-2 GRSC 713 - Contemporary Chromatographic Analysis of Food Credits: 1 GRSC 745 - Fundamentals of Bioprocessing Credits: 3 IMSE 501 - Industrial Management Credits: 3 LEAD 212 - Introduction to Leadership Concepts Credits: 2-3 LEAD 350 - Culture and Context in Leadership Credits: 3 MANGT 300 - Introduction to Total Quality Management Credits: 1 MANGT 420 - Management Concepts Credits: 3 MANGT 530 - Industrial and Labor Relations Credits: 3 MANGT 531 - Human Resources Management Credits: 3 MKTG 400 - Introduction to Marketing Credits: 3 MKTG 542 - Fundamentals of Professional Selling Credits: 3	
FREE ELECTIVES Credits: 3	**FREE ELECTIVES Credits: 3**	
	SOCIAL SCIENCES AND HUMANITIES Credits: 3 AMETH – AMETH 160 to 501 ANTH – Any course ARCH – ARCH 301 ART – Any course COMM – COMM 320 to 535 DANCE – Any course DEN – DEN 325, 450 ECON - ECON 120 to 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, 655, 670, 671 FSHS – Any course GEOG – GEOG 100, 200, 201, 300 to 799 GWSS – Any Course HIST – Any course Modern Language – Any course MUSIC – Any course PHILO – Any course POLSC – Any course PSYCH – Any course SOCIO – Any course SOCWK – Any course THTRE – Any course	**(7)**
NOTE ~~Six of the hours must be from classes at the 300 level or above. Requirements for transfer students vary depending on transfer hours accepted by K-State.~~ ~~Must satisfy K-State 8 general education requirements.~~	**NOTE** - Up to half of the credits required for a four-year degree may be completed at an accredited two-year institution. - Each student must complete at least 30 K-State resident credits to be considered for a degree from K-State. A student must complete 20 of the last 30 hours of resident credits through K-State. In other words, no more than 10 hours of transfer credit hours may be applied toward the last 30 hours you take for your degree. - A minimum of 45 hours must be taken at the course level of 300 or above.	**(8)**

	Each student must satisfy K-State 8 general education requirements. K-State 8 can be met by both K-State and transfer courses.
Total credit hours required for graduation: (128)	**Total credit hours required for graduation: (128)**

RATIONALE:

(1) Further *course categorization* was made. Current curriculum does not have categories that are descriptive of the requirements. "General requirements" overall category has been replaced with several specific categories and titled as "natural sciences", "quantitative studies", "communications", business and economics", bakery science core requirements", and "production management option requirements".

(2) A *communication elective block* has been added. This expands the choices available to students as well as increasing their ability to fit a communication elective in their schedules.

(3) Number of *business electives* was increased from 9 to 12 credit hours. Other changes made is this elective block are: (i) MANGT 420 and GRSC 530 were moved from the core requirements category to the business electives, (ii) one more course - MANGT 531 was added to the list. These changes will add flexibility to students' selection of business, and also help to minimize future course variance requests.

(4) Students are now required to take *one practicum* instead of two. AIB practicum is extremely enrolment limited. This plus the fact students generally gain experience in the material covered in one of the practicums as part of their internship makes it unnecessary to enroll in both.

(5) Several changes were made in the *Production Management Option* requirements: (i) GRSC 210 CAD Flow Sheets for Grain Processes (3), and GRS 541 Engineering Applications to Grain/Food Products Laboratory (1) were dropped, which was a faculty determination that these course contents are not fully pertinent to be considered as core requirement for BSM-PM majors. (ii) MANGT 420 and GRSC 530 were moved to the business electives as explained above. (iii) GRSC 405 Grain Analysis Techniques (2) was added back. Recent restructure and refocus of GRSC 405 course material and coverage render this course of value as a core requirement for BSM-PM majors. Total of 5 credit hours were saved from these changes. 3-hours were used to add a social science elective, and remaining 2-hours were added to the specialization electives to increase it from 5 to 7-hours.

(6) Several new courses were added to the *Specialization Electives*: FDSCI 710, 728, 740, 751, LEAD 350, and the entire list of Business electives. These FDSCI courses are often taken by our students through course variance requests. This change will help to minimize future course variances. LEAD 350 will provide another option for our students to fulfill the global issues and diversity section of the K-State 8. The courses listed under Business electives were also added to this section so that the students may utilize their unused business electives as specialization electives.
GRSC 500 and 501 were deleted from the specialization electives. BSM students rarely, if ever, enroll in either GRSC 500 or 501. As neither course is utilized as a specialization elective, their presence on that list is unnecessary.

(7) Social science electives were not available for BSM-PM majors. With the recent proposed curriculum changes now we are able to add one which was a much needed category to help our students to gain competency in social sciences and humanities. Also a list of eligible courses was added to provide a clear guideline to the students.

(8) *Graduation requirements* were summarized in this section to provide quick guidelines for the advisors and the students.

(9) *Other changes***.** There are several corrections made due to "course title" changes which are concurrently addressed in Fall 2016 GSI course proposals.

IMPACT:

(1), (4), (5), (7), (8) and (9). No impact on other departments.

(2), (3), (6). The following Department Heads were contacted on October 3, 2016 regarding the proposed curriculum changes.

ACCTG (Dr. Brett Wilkinson) – responded that the Department of Accounting supports the continued listing of ACCTG 231, 241 and 331 provided enrollments do not change.

BUS (Dr. Chwen Sheu, csheu@ksu.edu and CBA Office of Student Services, cbastusv@ksu.edu) - Dr. Sheu responded that the Department of Management supports the use of ENTRP 340.

COMM (Dr. Tim Steffensmeier, steffy@ksu.edu) - He responded in support of the use of COMM 106 and COMM 311.

LEAD (Dr. Mary Hale Tolar, mtolar@ksu.edu) - She responded in support of the use of LEAD 212 and 350.

MANGT (Dr. Bill Turnley, turnley@ksu.edu) was contacted on October 3, 2016. No response has been received to date.

EFFECTIVE DATE: Fall 2017

Feed Science and Management (B.S.) - Feed Production Option

FROM:	TO:	
~~Three~~ options are offered in the ~~Feed~~ Science and Management degree program: Feed Production~~, Pet Food Production~~ and Biofuels Production. The Feed Production option is intended for those wishing to follow the conventional feed science program to prepare for careers in the feed manufacturing and animal nutrition fields including pet food manufacturing and other allied industries. **~~GENERAL REQUIREMENTS:~~** ACCTG 231 - Accounting for Business Operations **Credits:** 3 AGEC 120 - Agricultural Economics and Agribusiness **Credits:** 3 ASI 318 - Fundamentals of Nutrition **Credits:** 3 BIOCH 265 - Introductory Organic and Biochemistry **Credits:** 5 or CHM 350 - General Organic Chemistry **Credits:** 3 and CHM 351 - General Organic Chemistry Laboratory **Credits:** 2 BIOL 198 - Principles of Biology **Credits:** 4 BIOL 455 - General Microbiology **Credits:** 4 CHM 210 - Chemistry I **Credits:** 4 CHM 230 - Chemistry II **Credits:** 4 COMM 105 - Public Speaking IA **Credits:** 2 ECON 110 - Principles of Macroeconomics **Credits:** 3 ENGL 100 - Expository Writing I **Credits:** 3 ENGL 200 - Expository Writing II **Credits:** 3 ENGL 516 - Written Communication for the Sciences **Credits:** 3 GRSC 100 - ~~Grain Science & Industry~~ Orientation **Credits:** 1 GRSC 101 - Introduction to Grain Science and Industry **Credits:** 3 ~~GRSC 150 - Principles of Milling **Credits:** 2~~ ~~GRSC 151 - Principles of Milling Laboratory **Credits:** 1~~	Two options are offered in the Feed Science and Management degree program: Feed Production and Biofuels Production. The Feed Production option is intended for those wishing to follow the conventional feed science program to prepare for careers in the feed manufacturing and animal nutrition fields including pet food manufacturing and other allied industries. **NATURAL SCIENCES (29 credit hours)** CHM 210 - Chemistry I Credits: 4 CHM 230 - Chemistry II Credits: 4 BIOCH 265 - Introductory Organic and Biochemistry Credits: 5 or CHM 350 - General Organic Chemistry Credits: 3 and CHM 351 - General Organic Chemistry Laboratory Credits: 2 ASI 318 - Fundamentals of Nutrition Credits: 3 BIOL 198 - Principles of Biology Credits: 4 BIOL 455 - General Microbiology Credits: 4 PHYS 113 - General Physics I Credits: 4 PHYS 114 - General Physics II Credits: 4 **QUANTITATIVE STUDIES (6 credit hours)** MATH 205 - General Calculus and Linear Algebra Credits: 3 STAT 325 - Introduction to Statistics Credits: 3 **COMMUNICATIONS (11 credit hours)** COMM 105 - Public Speaking IA Credits: 2 ENGL 100 - Expository Writing I Credits: 3 ENGL 200 - Expository Writing II Credits: 3 *Communication elective (choose one):* AGCOM 400 - Agricultural Business Communications Credits: 3 COMM 311 Business and Professional Speaking Credits: 3 ENGL 516 - Written Communication for the Sciences Credits: 3	**(1)**

GRSC 210 - CAD Flow Sheets for Grain Processes **Credits:** 3 GRSC 310 - Materials Handling **Credits:** 3 GRSC 510 - Feed Technology I **Credits:** 3 ~~GRSC 511 - Feed Technology I Laboratory **Credits:** 1~~ GRSC ~~512~~ - Feed Technology II **Credits:** 3 ~~GRSC 513 - Feed Regulations and Quality Laboratory **Credits:** 1~~ GRSC 530 - Management Applications in the Grain Processing Industries **Credits:** 3 ~~GRSC 555 - Cereal Food Plant Design and Construction~~ **Credits:** 3 ~~GRSC 560 - Electricity and Its Control for the Grain Processing Industry~~ **Credits:** 3 GRSC 561 - Qualities of Feed Ingredients **Credits:** 3 GRSC 591 - Internship in Grain Science **Credits:** 1 GRSC 651 - Food and Feed Product Protection **Credits:** 4 MATH 205 - General Calculus and Linear Algebra **Credits:** 3 PHYS 113 - General Physics I **Credits:** 4 PHYS 114 - General Physics II **Credits:** 4 STAT 325 - Introduction to Statistics **Credits:** 3 Free Electives **Credits:** 6 Social Sciences and Humanities **Credits:** 6		
ECON 110 - Principles of Macroeconomics Credits: 3 ACCTG 231 - Accounting for Business Operations Credits: 3 AGEC 120 - Agricultural Economics and Agribusiness Credits: 3	**BUSINESS AND ECONOMICS (15 credit hours)** ECON 110 - Principles of Macroeconomics Credits: 3 ACCTG 231 - Accounting for Business Operations Credits: 3 AGEC 120 - Agricultural Economics and Agribusiness Credits: 3 or ECON 120 - Principles of Microeconomics Credits: 3 *Management Electives (6)* ACCTG: 241 AGEC: 202, 220, 300 or above ECON: 500 or above ENTRP: 340 FINAN: 450 LEAD: 212, 350 MANGT: 300 or above MKTG: 390 or above	**(2)** **(3)**
ASI 318 - Fundamentals of Nutrition Credits: 3 GRSC 100 - ~~Grain Science & Industry~~ Orientation Credits: 1 GRSC 101 - Introduction to Grain Science and Industry Credits: 3 ~~GRSC 150 - Principles of Milling Credits: 2~~ ~~GRSC 151 - Principles of Milling Laboratory Credits: 1~~ GRSC 210 - CAD Flow Sheets for Grain Processes Credits: 3 GRSC 310 - Materials Handling Credits: 3 GRSC 510 - Feed Technology I Credits: 3	**CORE REQUIREMENTS (54 credit hours)** ASI 318 - Fundamentals of Nutrition Credits: 3 GRSC 100 - Freshman Orientation in Grain Science Credits: 1 GRSC 101 - Introduction to Grain Science and Industry Credits: 3 GRSC 210 - CAD Flow Sheets for Grain Processes Credits: 3 GRSC 310 - Materials Handling Credits: 3 GRSC 510 - Feed Technology I Credits: 3	**(4)**

~~GRSC 511 - Feed Technology I Laboratory Credits: 1~~		
GRSC ~~512~~ - Feed Technology II Credits: ~~3~~	GRSC 612 Feed Technology II and Laboratory Credit: 4	**(5)**
~~GRSC 513 - Feed Regulations and Quality Laboratory Credits: 1~~		
GRSC 530 - Management Applications in the Grain Processing Industries Credits: 3	GRSC 530 - Management Applications in the Grain Processing Industries Credits: 3	
~~GRSC 555 - Cereal Food Plant Design and Construction Credits: 3~~		**(4)**
~~GRSC 560 - Electricity and Its Control for the Grain Processing Industry Credits: 3~~		**(4)**
GRSC 561 - Qualities of Feed Ingredients Credits: ~~3~~	GRSC 561 - Qualities of Feed Ingredients Credits: 4	
GRSC 591 - Internship in Grain Science Credits: 1	GRSC 591 - Internship in Grain Science Credits: 1	
	GRSC 620 - Extrusion Processing in the Food and Feed Industries Credits: 4	**(6)**
GRSC 651 - Food and Feed Product Protection Credits: 4	GRSC 651 - Food and Feed Product Protection Credits: 4	
	GRSC 615 - Animal Food Safety Credits: 3	**(7)**
	Feed Production Emphasis Credits: 18 or Pet Food Emphasis Credits: 18	**(8)**
	FEED PRODUCTION EMPHASIS Grain Science Electives: Select 9 credits from the list below and Specialization Electives: Select 9 credits from the list below	
	PET FOOD EMPHASIS ASI 520 Companion and Laboratory Animal Management Credits: 3 GRSC 645 Pet Food Processing Credits: 4 GRSC 677 Companion Animal Nutrition Credits: 1 Grain Science Electives: Select 6 credits from the list below and Specialization Electives: Select 4 credits from the list below	**(9)**
	Grain Science Electives: GRSC 150 Principles of Milling Credits: 2 GRSC 151 Principles of Milling Laboratory Credits: 1 GRSC 491 Faculty-Led Study Abroad Credits: 1-3 GRSC 499 Undergraduate Research in Grain Science Credits: 0-3 GRSC 555 Cereal Food Plant Design Credits: 3 GRSC 560 Electricity and Industrial Power Distribution Credits: 3 GRSC 592 Extended Internship in Grain Science Credits: 1 GRSC 602 Cereal Science Credits: 3 GRSC 645 Pet Food Processing Credits: 4	**(10)**
	Specialization Electives: ASI: 102, 300 or above ENTOM: 300 or above FDSCI: 300 or above BIOCH 521 General Biochemistry Credits: 3 BIOCH 522 General Biochemistry Laboratory Credits: 2 CHM 531 Organic Chemistry I Credits: 3 CHM 532 Organic Chemistry I Laboratory Credits: 2 FNDH 711 Pet Food Sensory Analysis Credits: 2	**(11)**

~~**Feed Production Option Required Courses (19 credit hours):**~~ ~~AGEC 420 - Commodity Futures Credits: 3~~ ~~GRSC 620 - Extrusion Processing in the Food and Feed Industries Credits: 4~~ ~~Specialization Electives Credits: 12~~ ~~*Specialization Electives:*~~ ~~ACCTG 241 - Accounting for Investing and Financing Credits: 3~~ ~~ACCTG 331 - Intermediate Accounting Processes Credits: 3~~ ~~AGEC 410 - Agricultural Policy Credits: 3~~ ~~AGEC 515 - Food and Agribusiness Marketing Credits: 3~~ ~~AGEC 632 - Agribusiness Logistics Credits: 3~~ ~~ASI 320 - Principles of Feeding Credits: 3~~ ~~ASI 500 - Genetics Credits: 3~~ ~~BIOCH 521 - General Biochemistry Credits: 3~~ ~~ECON 631 - Principles of Transportation Credits: 3~~ ~~FINAN 450 - Principles of Finance Credits: 3~~ ~~GRSC 491 - Faculty Led Study Abroad Credits: 1-3~~ ~~GRSC 499 - Undergraduate Research in Grain Science Credits: 0-3~~ ~~GRSC 590 - Grain Science Problems Credits: 1-3~~ ~~GRSC 592 - Extended Internship in Grain Science Credits: 1~~ ~~IMSE 501 - Industrial Management Credits: 3~~ ~~MANGT 390 - Business Law I Credits: 3~~ ~~MANGT 420 - Management Concepts Credits: 3~~ ~~MANGT 530 - Industrial and Labor Relations Credits: 3~~ ~~MANGT 531 - Human Resources Management Credits: 3~~		**(12)**
	FREE ELECTIVES Credits: 6	
	SOCIAL SCIENCES AND HUMANITIES Credits: 6 AMETH – AMETH 160 to 501 ANTH – Any course ARCH – ARCH 301 ART – Any course COMM – COMM 320 to 535 DANCE – Any course DEN – DEN 325, 450 ECON - ECON 120 to 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, 655, 670, 671 FSHS – Any course GEOG – GEOG 100, 200, 201, 300 to 799 GWSS – Any course HIST – Any course Modern Language – Any course MUSIC – Any course PHILO – Any course POLSC – Any course PSYCH – Any course SOCIO – Any course SOCWK – Any course THTRE – Any course	**(13)**
NOTE	**NOTE**	**(14)**

~~Six of the hours must be from classes at the 300 level or above. Requirements for transfer students vary depending on transfer hours accepted by K-State.~~ ~~Must satisfy K-State 8 general education requirements.~~ **Total credit hours required for graduation: (127)**	- Up to half of the credits required for a four-year degree may be completed at an accredited two-year institution. - Each student must complete at least 30 K-State resident credits to be considered for a degree from K-State. A student must complete 20 of the last 30 hours of resident credits through K-State. In other words, no more than 10 hours of transfer credit hours may be applied toward the last 30 hours you take for your degree. - A minimum of 45 hours must be taken at the course level of 300 or above. - Each student must satisfy K-State 8 general education requirements. K-State 8 can be met by both K-State and transfer courses. **Total credit hours required for graduation: (127)**

RATIONALE:

(1) Further *course categorization* was made. Current curriculum does not have categories that are descriptive of the requirements. "General requirements" overall category has been replaced with several specific categories and titled as "natural sciences", "quantitative studies", "communications", business and economics", "feed science core requirements", and "emphasis areas".

(1) A *communication elective block* has been added. This expands the choices available to students as well as increasing their ability to fit a communication elective in their schedules.

(2) ECON 120 and AGEC 120 *alternate*. Provides greater flexibility in the curriculum for the students.

(3) A new *block of management electives* was added and designed in a less prescribed manner. The new format will give students a broader offering of courses that will provide more flexibility in the Animal Food Science & Management program.

(4) GRSC 150, 151, 555 and 560 were *dropped from core requirements*. These courses are now listed in the *grain science elective* block for students who plan to pursue a career in feed mill management. The change will allow students the ability to select courses related to their areas of specialization in management, nutrition, or research.

(5) Changes made in Feed *Technology I and II* courses.
Dropping GRSC 511 Feed Technology I Laboratory:
The laboratory is not required for the revised course (GRSC 510 Feed Technology I). The content of GRSC 510 has been revised to cover more introductory information on the animal food industries. The course content will focus on the history, structure, regulations, and management. The one-hour laboratory will be part of GRSC 561.
Combining GRSC 512 Feed Technology II and GRSC 513 Feed Technology II Laboratory:
Course content will be reworked to provide a more in depth study of the feed manufacturing process. Additional technical information will be added to each manufacturing process lecture. The course number will be increased and changed to GRSC 612 Feed Technology II and Laboratory (4) based on the new content. The course will also target animal science graduate students who want to learn about the feed manufacturing process. This will also increase the number of graduate level courses in Grain Science.

(6) GRSC 620 was *moved* to the *core requirement* category.

(7) Adding a *new feed safety course*, GRSC 615 - Animal Food Safety (3). Please see the course description and rationale provided under Fall 2016 Grain Science Course Proposals.

(8) *New emphasis areas were added*. The Animal Food Science and Management (AFSM) curriculum will drop the Pet Food Production Management option, and offer a single Production Management option with two emphasis areas: Feed production or Pet food production. Students will choose an emphasis in either feed production or pet food, which will create greater flexibility under one degree program.

(9) Adding a *new course*, GRSC 677 - Companion Animal Nutrition (1) to the Pet Food emphasis.
Combining GRSC 645 Pet Food Processing (3) and 646 Pet Food Processing Laboratory (1) under

GRSC 645 for total of 4 credit hours. Please see the rationale provided under Fall 2016 Grain Science Course Proposals.

(10) A list of *Grain Science electives* was added. This will give students a broader offering of courses that will provide more flexibility.

(11) A new block of *specialization electives* was added. The list was defined in a less prescribed way. The new format will give students a broader offering of courses that will provide more flexibility in the Animal Food Science and Management program.

(12) Former "Feed Production Option Required Courses" block was *cleaned up* and *reorganized* by dropping or moving these courses. AGEC 420 is now covered under Management Electives list. GRSC 620 was moved to core requirements, and the entire specialization block was reformatted as reported above.

(13) Changes in *Social Science electives & Humanities*. The requirement was dropped from 6-hours to 3-hours to accommodate the other changes made in the management electives. Also a list of eligible courses was added to provide a clear guideline to the students.

(14) *Graduation requirements* were summarized in this section to provide quick guidelines for the advisors and the students.

(15) *Other changes***.** There are several corrections made due to "course title" changes which are concurrently addressed in Fall 2016 GSI course proposals.

IMPACT:

(1), (5), (6), (7), (9), (11), (12), (13), (14), (15) and (16). No impact on other departments.

(2), (3), (4), (8), (10). The following Department Heads were contacted on October 3, 2016 regarding the proposed curriculum changes.

ACCTG (Dr. Brett Wilkinson, bwilkinson@ksu.edu) – responded that the Department of Accounting supports the continued listing of ACCTG 231, 241 and 331 provided enrollments do not change.

BIOCH (Dr. Phillip Klebba, peklebba@ksu.edu) was contacted on October 3, 2016. No response has been received to date.

CHM (Dr. Eric Maatta, eam@ksu.edu) - He responded in support of the use of all proposed Chemistry courses, but noted that CHEM 371 tends to have excessive demand in the Fall semesters, but that ample space is available in the spring terms.

COMM (Dr. Tim Steffensmeier, steffy@ksu.edu) - He responded He responded in support of the use of COMM 106 and COMM 311.

ECON (Dr. William Blankenau, blankenw@ksu.edu) - He responded in support of the use of all proposed ECON courses.

ENTRP (Dr. Chwen Sheu, csheu@ksu.edu and CBA Office of Student Services, cbastusv@ksu.edu) - Dr. Sheu responded that the Department of Management supports the use of ENTRP 340.

FINAN (Dr. Eric Higgins, ehiggins@ksu.edu) responded in support of the use of FINAN 450.

FNDH (Dr. Mark Haub, haub@ksu.edu) responded with no opposition to the proposal.

LEAD (Dr. Mary Hale Tolar, mtolar@ksu.edu) - She responded in support of the use of LEAD 212 and 350.

MANGT (Dr. Bill Turnley, turnley@ksu.edu) was contacted on October 3, 2016. No response has been received to date.

MKTG (Dr. Esther Swilley, esthers@ksu.edu) – She responded in support of the use of MKTG courses numbered 390 and higher.

EFFECTIVE DATE: FALL 2017

DROP: Feed Science and Management (B.S.) – Pet Food Production Option

FROM	TO
~~**Feed Science and Management (B.S.) Pet Food Production Option**~~ ~~Three options are offered in the Feed Science and Management degree program: Feed Production, Pet Food Production and Biofuels Production.~~ ~~The Pet Food Production option focuses on training students in the science of pet food production, and provide technical skills needed to produce safe and effective food items for dogs, cats, and other non-food animals (rodents, ferrets, reptiles, amphibians, exotic birds, aquarium fish, zoo animals, etc.~~ ~~**Bachelor's degree requirements**~~ ~~**General Requirements:**~~ ~~ACCTG 231 - Accounting for Business Operations Credits: 3~~ ~~AGEC 120 - Agricultural Economics and Agribusiness Credits: 3~~ ~~ASI 318 - Fundamentals of Nutrition Credits: 3~~ ~~BIOCH 265 - Introductory Organic and Biochemistry Credits: 5~~ ~~or~~ ~~CHM 350 - General Organic Chemistry Credits: 3~~ ~~and~~ ~~CHM 351 - General Organic Chemistry Laboratory Credits: 2~~ ~~BIOL 198 - Principles of Biology Credits: 4~~ ~~BIOL 455 - General Microbiology Credits: 4~~ ~~CHM 210 - Chemistry I Credits: 4~~ ~~CHM 230 - Chemistry II Credits: 4~~ ~~COMM 105 - Public Speaking IA Credits: 2~~ ~~ECON 110 - Principles of Macroeconomics Credits: 3~~ ~~ENGL 100 - Expository Writing I Credits: 3~~ ~~ENGL 200 - Expository Writing II Credits: 3~~ ~~ENGL 516 - Written Communication for the Sciences Credits: 3~~ ~~GRSC 100 - Grain Science & Industry Orientation Credits: 1~~ ~~GRSC 101 - Introduction to Grain Science and Industry Credits: 3~~ ~~GRSC 150 - Principles of Milling Credits: 2~~ ~~GRSC 151 - Principles of Milling Laboratory Credits: 1~~ ~~GRSC 210 - CAD Flow Sheets for Grain Processes Credits: 3~~ ~~GRSC 310 - Materials Handling Credits: 3~~ ~~GRSC 510 - Feed Technology I Credits: 3~~ ~~GRSC 511 - Feed Technology I Laboratory Credits: 1~~ ~~GRSC 512 - Feed Technology II Credits: 3~~ ~~GRSC 513 - Feed Regulations and Quality Laboratory Credits: 1~~ ~~GRSC 530 - Management Applications in the Grain Processing Industries Credits: 3~~	

GRSC 555 - Cereal Food Plant Design and Construction Credits: 3 GRSC 560 - Electricity and Its Control for the Grain Processing Industry Credits: 3 GRSC 561 - Qualities of Feed Ingredients Credits: 3 GRSC 591 - Internship in Grain Science Credits: 1 GRSC 651 - Food and Feed Product Protection Credits: 4 MATH 205 - General Calculus and Linear Algebra Credits: 3 PHYS 113 - General Physics I Credits: 4 PHYS 114 - General Physics II Credits: 4 STAT 325 - Introduction to Statistics Credits: 3 **Free Electives Credits: 6** **Social Sciences and Humanities Credits: 6** **Pet Food Production Option Required Courses (19 credit hours):** ASI 520 - Companion Animal Management Credits: 3 GRSC 620 - Extrusion Processing in the Food and Feed Industries Credits: 4 GRSC 645 - Pet Food Processing Credits: 3 GRSC 646 - Pet Food Processing Laboratory Credits: 1 Specialization Electives Credits: 8 **Specialization Electives:** ACCTG 241 - Accounting for Investing and Financing Credits: 3 ACCTG 331 - Intermediate Accounting Processes Credits: 3 AGEC 410 - Agricultural Policy Credits: 3 AGEC 515 - Food and Agribusiness Marketing Credits: 3 AGEC 632 - Agribusiness Logistics Credits: 3 ASI 320 - Principles of Feeding Credits: 3 ASI 500 - Genetics Credits: 3 BIOCH 521 - General Biochemistry Credits: 3 ECON 631 - Principles of Transportation Credits: 3 FINAN 450 - Principles of Finance Credits: 3 GRSC 491 - Faculty-Led Study Abroad Credits: 1-3 GRSC 499 - Undergraduate Research in Grain Science Credits: 0-3 GRSC 592 - Extended Internship in Grain Science Credits: 1 IMSE 501 - Industrial Management Credits: 3 MANGT 390 - Business Law I Credits: 3 MANGT 420 - Management Concepts Credits: 3 MANGT 530 - Industrial and Labor Relations Credits: 3 MANGT 531 - Human Resources Management Credits: 3 **Note** Six of the hours must be from classes at the 300 level or above. Requirements for transfer students vary depending on transfer hours accepted by K-State. Must satisfy K-State 8 general education requirements.	

~~**Total credit hours required for graduation: (127)**~~	

RATIONALE: Dropping Pet Food Production Option and merging Feed production and Pet food production options under single program guide.
Changing the name of the curriculum to Animal Food Science and Management would include pet food. The pet food option will be handled as an emphasis similar to other departments thus creating one program with two emphases in feed production and pet food.

IMPACT: No impact on other departments.

EFFECTIVE DATE: Fall 2017

Milling Science and Management (B.S.) - Chemistry Option

FROM:	TO:	
~~**General Requirements**~~ ACCTG 231 - Accounting for Business Operations **Credits:** 3 AGEC 120 - Agricultural Economics and Agribusiness **Credits:** 3 BIOCH 521 - General Biochemistry **Credits:** 3 BIOCH 522 - General Biochemistry Laboratory **Credits:** 2 BIOL 198 - Principles of Biology **Credits:** 4 BIOL 455 - General Microbiology **Credits:** 4 CHM 210 - Chemistry I **Credits:** 4 CHM 230 - Chemistry II **Credits:** 4 CHM 500 - General Physical Chemistry **Credits:** 3 CHM 531 - Organic Chemistry I **Credits:** 3 CHM 532 - Organic Chemistry Laboratory **Credits:** 2 CHM 550 - Organic Chemistry II **Credits:** 3 COMM 105 - Public Speaking IA **Credits:** 2 ECON 110 - Principles of Macroeconomics **Credits:** 3 ENGL 100 - Expository Writing I **Credits:** 3 ENGL 200 - Expository Writing II **Credits:** 3 FDSCI 727 - Chemical Methods of Food Analysis **Credits:** 2 GRSC 100 - ~~Grain Science & Industry Orientation~~ **Credits:** 1 ~~GRSC 101 - Introduction to Grain Science and Industry **Credits:** 3~~ GRSC 150 - Principles of Milling **Credits:** 2 GRSC 151 - Principles of Milling Laboratory **Credits:** 1 GRSC 210 - CAD Flow Sheets for Grain Processes **Credits:** 3	**NATURAL SCIENCES (26 credit hours)** BIOL 198 - Principles of Biology Credits: 4 BIOL 455 - General Microbiology Credits: 4 CHM 210 - Chemistry I Credits: 4 CHM 230 - Chemistry II Credits: 4 PHYS 213 - Engineering Physics I Credits: 5 PHYS 214 - Engineering Physics II Credits: 5 **QUANTITATIVE STUDIES (11 credit hours)** MATH 220 - Analytic Geometry and Calculus I Credits: 4 MATH 221 - Analytic Geometry and Calculus II Credits: 4 STAT 325 - Introduction to Statistics Credits: 3 **COMMUNICATIONS (11 credit hours)** ENGL 100 - Expository Writing I Credits: 3 ENGL 200 - Expository Writing II Credits: 3 COMM 105 - Public Speaking IA Credits: 2 *Communication elective (choose one):* AGCOM 400 - Agricultural Business Communications Credits: 3 ENGL 516 - Written Communication for the Sciences Credits: 3 COMM 311 - Business and Professional Speaking Credits: 3 **BUSINESS AND ECONOMICS (12 credit hours)** ECON 110 - Principles of Macroeconomics Credits: 3 AGEC 120 - Agricultural Economics and Agribusiness Credits: 3 or ECON 120 - Principles of Microeconomics Credits: 3 ACCTG 231 - Accounting for Business Operations Credits: 3 *Management Elective (choose one):*	**(1)** **(2)** **(3)**

GRSC 310 - Materials Handling **Credits:** 3 GRSC 500 - Milling Science I **Credits:** 2 GRSC 501 - Milling Science I Laboratory **Credits:** 2 GRSC 502 - Milling Science II **Credits:** 2 GRSC 503 - Milling Science II Laboratory **Credits:** 2 GRSC 602 - Cereal Science **Credits:** 3 GRSC 625 - Flour and Dough Testing **Credits:** 3 ~~GRSC 530 - Management Applications in the Grain Processing Industries **Credits:** 3~~ GRSC 635 - Baking Science I **Credits:** 2 GRSC 636 - Baking Science I Laboratory **Credits:** 2 GRSC 651 - Food and Feed Product Protection **Credits:** 4 GRSC 584 - Milling Processing Technology Management **Credits:** 3 GRSC 591 - Internship in Grain Science **Credits:** 1 MATH 220 - Analytic Geometry and Calculus I **Credits:** 4 MATH 221 - Analytic Geometry and Calculus II **Credits:** 4 PHYS 213 - Engineering Physics I **Credits:** 5 PHYS 214 - Engineering Physics II **Credits:** 5 STAT 325 - Introduction to Statistics **Credits:** 3 Free Elective **Credits:** 3 Social Sciences and Humanities **Credits:** 6	GRSC 530 - Management Applications in Grain Processing Industries Credits: 3 MANGT 420 - Management Concepts Credits: 3 MANGT 530 - Industrial and Labor Relations Credits: 3 MANGT 531 - Human Resources Management Credits: 3 **MILLING SCIENCE CORE REQUIREMENTS (35-36 credit hours)** GRSC 100 - Freshman Orientation in Grain Science Credits: 1 GRSC 150 - Principles of Milling Credits: 2 GRSC 151 - Principles of Milling Laboratory Credits: 1 GRSC 210 - CAD Flow Sheets for Grain Processes Credits: 3 GRSC 310 - Materials Handling Credits: 3 GRSC 500 - Milling Science I Credits: 2 GRSC 501 - Milling Science I Laboratory Credits: 2 GRSC 502 - Milling Science II Credits: 2 GRSC 503 - Milling Science II Laboratory Credits: 2 GRSC 591 - Internship in Grain Science Credits: 1 GRSC 602 - Cereal Science Credits: 3 GRSC 625 - Flour and Dough Testing Credits: 3 GRSC 635 - Baking Science I Credits: 2 GRSC 636 - Baking Science I Laboratory Credits: 2 GRSC 651 - Food and Feed Product Protection Credits: 4 *Choose one:* GRSC 555 - Cereal Food Plant Design Credits: 3 GRSC 556 - Pneumatic Conveying of Dry Solids Credits: 2 GRSC 580 - Advanced Flow Sheets Credits: 2 GRSC 584 - Milling Processing Technology Management Credits: 3 **CHEMISTRY OPTION REQUIREMENTS (24-25 credit hours)** BIOCH 521 - General Biochemistry Credits: 3 BIOCH 522 - General Biochemistry Laboratory Credits: 2 CHM 500 - General Physical Chemistry Credits: 3 CHM 531 - Organic Chemistry I Credits: 3 CHM 532 - Organic Chemistry Laboratory Credits: 2 CHM 550 - Organic Chemistry II Credits: 3 FDSCI 727 - Chemical Methods of Food Analysis Credits: 2	**(4)** **(5)**
Specialization Electives: ~~6~~ ACCTG 231 - Accounting for Business Operations Credits: 3 ACCTG 241 - Accounting for Investing and Financing Credits: 3 AGEC 318 - Food and Agribusiness Management Credits: 3 AGEC 420 - Commodity Futures Credits: 3 AGEC 500 - Production Economics Credits: 3 AGEC 513 - Agricultural Finance Credits: 3 AGEC 515 - Food and Agribusiness Marketing Credits: 3	**Specialization Electives: 6-7** ACCTG 231 - Accounting for Business Operations Credits: 3 ACCTG 241 - Accounting for Investing and Financing Credits: 3 AGEC 318 - Food and Agribusiness Management Credits: 3 AGEC 420 - Commodity Futures Credits: 3 AGEC 500 - Production Economics Credits: 3 AGEC 513 - Agricultural Finance Credits: 3 AGEC 515 - Food and Agribusiness Marketing Credits: 3	**(6)**

AGEC 520 - Market Fundamentals and Futures/Options Trading Credits: 3 AGEC 632 - Agribusiness Logistics Credits: 3 AGRON 340 - Grain Grading Credits: 2	AGEC 520 - Market Fundamentals and Futures/Options Trading Credits: 3 AGEC 632 - Agribusiness Logistics Credits: 3 AGRON 340 - Grain Grading Credits: 2
~~COMM 311 - Business and Professional Speaking Credits: 3~~ ~~ENGL 516 - Written Communication for the Sciences Credits: 3~~ ~~GRSC 201 - Fundamental Baking Calculations Credits: 1~~ GRSC 491 - Faculty-Led Study Abroad Credits: 1-3 GRSC 499 - Undergraduate Research in Grain Science Credits: 0-3	GRSC 491 - Faculty-Led Study Abroad Credits: 1-3 GRSC 499 - Undergraduate Research in Grain Science Credits: 0-3 GRSC 530 - Management Applications in Grain Processing Industries Credits: 3
GRSC 540 - ~~Engineering Applications to Grain/Food Products~~ Credits: 3 GRSC 541 - ~~Engineering Applications to Grain/Food Products~~ Laboratory Credits: 1	GRSC 540 – Process Calculations in Food Systems Credits: 3 GRSC 541 - Process Calculations in Food Systems Laboratory Credits: 1 GRSC 555 - Cereal Food Plant Design Credits: 3 GRSC 556 - Pneumatic Conveying of Dry Solids Credits: 2
GRSC 560 - Electricity and ~~Its Control for the Grain Processing Industry~~ Credits: 3 GRSC 580 - Advanced Flow Sheets Credits: 2	GRSC 560 - Electricity and Industrial Power Distribution Credits: 3 GRSC 580 - Advanced Flow Sheets Credits: 2 GRSC 584 - Milling Processing Technology Management Credits: 3
GRSC 592 - Extended Internship in Grain Science Credits: 1	GRSC 592 - Extended Internship in Grain Science Credits: 1 GRSC 615 – Animal Food Safety Credits: 3
GRSC 620 - Extrusion Processing in the Food and Feed Industries Credits: 4 GRSC 712 - Vibrational Spectroscopic Analysis and Chemometrics Credits: 1-2 GRSC 713 - Contemporary Chromatographic Analysis of Food Credits: 1 GRSC 745 - Fundamentals of Bioprocessing Credits: 3	GRSC 620 - Extrusion Processing in the Food and Feed Industries Credits: 4 GRSC 712 - Vibrational Spectroscopic Analysis and Chemometrics Credits: 1-2 GRSC 713 - Contemporary Chromatographic Analysis of Food Credits: 1 GRSC 745 - Fundamentals of Bioprocessing Credits: 3 LEAD 212 - Introduction to Leadership Concepts Credits: 2-3 LEAD 350 - Culture and Context in Leadership Credits: 3
MANGT 390 - Business Law I Credits: 3 MANGT 420 - Management Concepts Credits: 3 MANGT 530 - Industrial and Labor Relations Credits: 3 MANGT 531 - Human Resources Management Credits: 3	MANGT 390 - Business Law I Credits: 3 MANGT 420 - Management Concepts Credits: 3 MANGT 530 - Industrial and Labor Relations Credits: 3 MANGT 531 - Human Resources Management Credits: 3
	FREE ELECTIVE Credits: 3
	SOCIAL SCIENCES AND HUMANITIES Credits: 6 (Must be taken from more than one department) AMETH – AMETH 160 to 501 ANTH – Any course ARCH – ARCH 301 ART – Any course COMM – COMM 320 to 535 DANCE – Any course DEN – DEN 325, 450 ECON - ECON 120 to 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, 655, 670, 671 FSHS – Any course GEOG – GEOG 100, 200, 201, 300 to 799 GWSS – Any course HIST – Any course Modern Language – Any course MUSIC – Any course PHILO – Any course POLSC – Any course PSYCH – Any course SOCIO – Any course SOCWK – Any course THTRE – Any course	
NOTE ~~Six of the hours must be from classes at the 300 level or above. Requirements for transfer students vary depending on transfer hours accepted by K-State.~~ ~~Must satisfy K-State 8 general education requirements.~~ **Total credit hours required for graduation: (~~129~~)**	**NOTE** - Up to half of the credits required for a four-year degree may be completed at an accredited two-year institution. - Each student must complete at least 30 K-State resident credits to be considered for a degree from K-State. A student must complete 20 of the last 30 hours of resident credits through K-State. In other words, no more than 10 hours of transfer credit hours may be applied toward the last 30 hours you take for your degree. - A minimum of 45 hours must be taken at the course level of 300 or above. Each student must satisfy K-State 8 general education requirements. K-State 8 can be met by both K-State and transfer courses. **Total credit hours required for graduation: (128)**	**(7)**

RATIONALE:

(1) Further *course categorization* was made. Current curriculum does not have categories that are descriptive of the requirements. "General requirements" overall category has been replaced with several specific categories and titled as "natural sciences", "quantitative studies", "communications", business and economics", "milling science core requirements", and "chemistry option requirements".

(2) A *communication elective block* was added. MSM did not have any communication course after COMM 105/106 which was a concern regarding soft skills of our students.

(3) A *management elective block* was added. MSM Cereal Option majors did not have any room for taking management/business courses. This elective block adds flexibility to students' selection of management electives as well as adding uniformity to the management electives required across all three departmental majors.

(4) Changes in *MSM core requirements*.
GRSC 101 Introduction to Grain Science and Industry was dropped from core requirement for two reasons. (i) GRSC 150/151 Principles of Milling and Lab serve as an introduction class for the milling science majors. (ii) Among the three GSI majors MSM is the most prescribed and tight curriculum. The three-hours gained from GRSC 101 will be used to add a *communication elective* as explained above.
GRSC 530 was moved from core requirement to the newly added *management electives* block.

(5) MSM Cereal Option majors are not able to take all of the higher level courses in core milling areas courses (GRSC 555, 556, 580 and 584) after GRSC 502/503 Mill Science II and Lab. This block will let students to choose one course from four alternatives rather than offering GRSC 584 as their only option.

(6) Several new courses were added to the *specialization electives*: LEAD 212, 350, GRSC 555, 556, 50, 584, 615, and the entire list of the management electives.
LEAD 212, 350 will provide another option for our students to fulfill the global issues and diversity section of the K-State 8.
The courses listed under the management electives were also added to this section so that the students may utilize their unused management electives as specialization electives.
GRSC 201 Fundamental Baking calculations was deleted from the specialization electives since MSM students rarely, if ever, enroll in GRSC 201.

(7) *Graduation requirements* were summarized in this section to provide quick guidelines for the advisors and the students.

(8) *Other changes***.** There are several corrections made due to "course title" changes which are concurrently addressed in Fall 2016 GSI course proposals.

IMPACT: **(1), (4), (5), (7), and (8).** No impact on other departments.

(2), (3), (6). The following Department Heads were contacted on October 3, 2016 regarding the proposed curriculum changes.

BUS (Dr. Chwen Sheu, csheu@ksu.edu and CBA Office of Student Services, cbastusv@ksu.edu) - Dr. Sheu responded that the Department of Management supports the use of ENTRP 340.

LEAD (Dr. Mary Hale Tolar, mtolar@ksu.edu) - She responded in support of the use of LEAD 212 and 350.

EFFECTIVE DATE: Fall 2017

Milling Science and Management (B.S.) - Operations Option

FROM:	TO:	
GENERAL REQUIREMENTS ACCTG 231 - Accounting for Business Operations **Credits:** 3 AGEC 120 - Agricultural Economics and Agribusiness **Credits:** 3 AGRON 340 - Grain Grading **Credits:** 2 BIOL 198 - Principles of Biology **Credits:** 4 BIOL 455 - General Microbiology **Credits:** 4 CHM 210 - Chemistry I **Credits:** 4 CHM 230 - Chemistry II **Credits:** 4 BIOCH 265 - Introductory Organic and Biochemistry **Credits:** 5 or CHM 350 - General Organic Chemistry **Credits:** 3 and CHM 351 - General Organic Chemistry Laboratory **Credits:** 2 COMM 105 - Public Speaking IA **Credits:** 2 ECON 110 - Principles of Macroeconomics **Credits:** 3 ENGL 100 - Expository Writing I **Credits:** 3 ENGL 200 - Expository Writing II **Credits:** 3 GRSC 100 - Grain Science & Industry Orientation **Credits:** 1	**NATURAL SCIENCES (29 credit hours)** BIOL 198 - Principles of Biology Credits: 4 BIOL 455 - General Microbiology Credits: 4 CHM 210 - Chemistry I Credits: 4 CHM 230 - Chemistry II Credits: 4 BIOCH 265 - Introductory Organic and Biochemistry Credits: 5 or CHM 350 - General Organic Chemistry Credits: 3 and CHM 351 - General Organic Chemistry Laboratory Credits: 2 PHYS 113 - General Physics I Credits: 4 PHYS 114 - General Physics II Credits: 4 **QUANTITATIVE STUDIES (7 credit hours)** MATH 220 - Analytic Geometry and Calculus I Credits: 4 STAT 325 - Introduction to Statistics Credits: 3 **COMMUNICATIONS (11 credit hours)** ENGL 100 - Expository Writing I Credits: 3 ENGL 200 - Expository Writing II Credits: 3 COMM 105 - Public Speaking IA Credits: 2 *Communication elective (choose one):* AGCOM 400 - Agricultural Business Communications Credits: 3	**(1)** **(2)**

~~GRSC 101 - Introduction to Grain Science and Industry **Credits:** 3~~ GRSC 150 - Principles of Milling **Credits:** 2 GRSC 151 - Principles of Milling Laboratory **Credits:** 1 GRSC 210 - CAD Flow Sheets for Grain Processes **Credits:** 3 GRSC 310 - Materials Handling **Credits:** 3 GRSC 405 - Grain Analysis Techniques **Credits:** 2 GRSC 500 - Milling Science I **Credits:** 2 GRSC 501 - Milling Science I Laboratory **Credits:** 2 GRSC 502 - Milling Science II **Credits:** 2 GRSC 503 - Milling Science II Laboratory **Credits:** 2 ~~GRSC 530 - Management Applications in the Grain Processing Industries **Credits:** 3~~ GRSC 540 - ~~Engineering Applications to Grain/Food Products~~ **Credits:** 3 ~~GRSC 541 - Engineering Applications to Grain/Food Products Laboratory **Credits:** 1~~ GRSC 555 - Cereal Food Plant Design and Construction **Credits:** 3 GRSC 556 - Pneumatic Conveying of Dry Solids **Credits:** 2 GRSC 560 - Electricity and ~~Its Control for the Grain Processing Industry~~ **Credits:** 3 GRSC 580 - Advanced Flow Sheets **Credits:** 2 GRSC 584 - Milling Processing Technology Management **Credits:** 3 GRSC 591 - Internship in Grain Science **Credits:** 1 GRSC 602 - Cereal Science **Credits:** 3 GRSC 625 - Flour and Dough Testing **Credits:** 3 GRSC 635 - Baking Science I **Credits:** 2 GRSC 636 - Baking Science I Laboratory **Credits:** 2 GRSC 651 - Food and Feed Product Protection **Credits:** 4 MATH 220 - Analytic Geometry and Calculus I **Credits:** 4 PHYS 113 - General Physics I **Credits:** 4 PHYS 114 - General Physics II **Credits:** 4 STAT 325 - Introduction to Statistics **Credits:** 3	ENGL 516 - Written Communication for the Sciences Credits: 3 COMM 311 - Business and Professional Speaking Credits: 3 **BUSINESS AND ECONOMICS (12 credit hours)** ACCTG 231 - Accounting for Business Operations Credits: 3 AGEC 120 - Agricultural Economics and Agribusiness Credits: 3 or ECON 120 - Principles of Microeconomics Credits: 3 ECON 110 - Principles of Macroeconomics Credits: 3 *Management Elective (choose one):* GRSC 530 - Management Applications in Grain Processing Industries Credits: 3 MANGT 420 - Management Concepts Credits: 3 MANGT 530 - Industrial and Labor Relations Credits: 3 MANGT 531 - Human Resources Management Credits: 3 **MILLING SCIENCE CORE REQUIREMENTS (33 credit hours)** GRSC 100 - Freshman Orientation in Grain Science Credits: 1 GRSC 150 - Principles of Milling Credits: 2 GRSC 151 - Principles of Milling Laboratory Credits: 1 GRSC 210 - CAD Flow Sheets for Grain Processes Credits: 3 GRSC 310 - Materials Handling Credits: 3 GRSC 500 - Milling Science I Credits: 2 GRSC 501 - Milling Science I Laboratory Credits: 2 GRSC 502 - Milling Science II Credits: 2 GRSC 503 - Milling Science II Laboratory Credits: 2 GRSC 591 - Internship in Grain Science Credits: 1 GRSC 602 - Cereal Science Credits: 3 GRSC 625 - Flour and Dough Testing Credits: 3 GRSC 635 - Baking Science I Credits: 2 GRSC 636 - Baking Science I Laboratory Credits: 2 GRSC 651 - Food and Feed Product Protection Credits: 4 **OPERATIONS OPTION REQUIREMENTS (25 credit hours)** AGRON 340 - Grain Grading Credits: 2 GRSC 405 - Grain Analysis Techniques Credits: 2 GRSC 540 - Process Calculations in Food Systems Credits: 3 GRSC 555 - Cereal Food Plant Design Credits: 3 GRSC 556 - Pneumatic Conveying of Dry Solids Credits: 2 GRSC 560 - Electricity and Industrial Power Distribution Credits: 3 GRSC 580 - Advanced Flow Sheets Credits: 2 GRSC 584 - Milling Processing Technology Management Credits: 3	**(3)** **(4)** **(5)**
Specialization Electives: ~~4~~	**Specialization Electives:** 5	**(6)**

ACCTG 241 - Accounting for Investing and Financing Credits: 3 ACCTG 331 - Intermediate Accounting Processes Credits: 3 AGEC 318 - Food and Agribusiness Management Credits: 3 AGEC 420 - Commodity Futures Credits: 3 AGEC 513 - Agricultural Finance Credits: 3 AGEC 515 - Food and Agribusiness Marketing Credits: 3 AGEC 520 - Market Fundamentals and Futures/Options Trading Credits: 3 AGEC 632 - Agribusiness Logistics Credits: 3	ACCTG 241 - Accounting for Investing and Financing Credits: 3 ACCTG 331 - Intermediate Accounting Processes Credits: 3 AGEC 318 - Food and Agribusiness Management Credits: 3 AGEC 420 - Commodity Futures Credits: 3 AGEC 513 - Agricultural Finance Credits: 3 AGEC 515 - Food and Agribusiness Marketing Credits: 3 AGEC 520 - Market Fundamentals and Futures/Options Trading Credits: 3 AGEC 632 - Agribusiness Logistics Credits: 3
CHM 371 - Chemical Analysis Credits: 4 ~~COMM 311 - Business and Professional Speaking Credits: 3~~ ~~ENGL 516 - Written Communication for the Sciences Credits: 3~~ ~~GRSC 201 - Fundamental Baking Calculations Credits: 1~~ GRSC 491 - Faculty-Led Study Abroad Credits: 1-3 GRSC 499 - Undergraduate Research in Grain Science Credits: 0-3	CHM 371 - Chemical Analysis Credits: 4 GRSC 491 - Faculty-Led Study Abroad Credits: 1-3 GRSC 499 - Undergraduate Research in Grain Science Credits: 0-3 GRSC 530 - Management Applications in Grain Processing Industries Credits: 3 GRSC 541 - Process Calculations in Food Systems Laboratory Credits: 1
GRSC 592 - Extended Internship in Grain Science Credits: 1	GRSC 592 - Extended Internship in Grain Science Credits: 1 GRSC 615 Animal Food Safety Credits: 3
GRSC 620 - Extrusion Processing in the Food and Feed Industries Credits: 4 GRSC 712 - Vibrational Spectroscopic Analysis and Chemometrics Credits: 1-2 GRSC 713 - Contemporary Chromatographic Analysis of Food Credits: 1 GRSC 745 - Fundamentals of Bioprocessing Credits: 3	GRSC 620 - Extrusion Processing in the Food and Feed Industries Credits: 4 GRSC 712 - Vibrational Spectroscopic Analysis and Chemometrics Credits: 1-2 GRSC 713 - Contemporary Chromatographic Analysis of Food Credits: 1 GRSC 745 - Fundamentals of Bioprocessing Credits: 3 LEAD 212 Introduction to Leadership Concepts Credits: 2-3 LEAD 350 Culture and Context in Leadership Credits: 3
MANGT 390 - Business Law I Credits: 3 MANGT 420 - Management Concepts Credits: 3 MANGT 530 - Industrial and Labor Relations Credits: 3 MANGT 531 - Human Resources Management Credits: 3	MANGT 390 - Business Law I Credits: 3 MANGT 420 - Management Concepts Credits: 3 MANGT 530 - Industrial and Labor Relations Credits: 3 MANGT 531 - Human Resources Management Credits: 3
Free Elective Credits: 3	**Free Elective Credits: 3**
Social Sciences and Humanities Credits: 9	**Social Sciences and Humanities Credits: 9** (Must be taken from more than one department) AMETH – AMETH 160 to 501 ANTH – Any course ARCH – ARCH 301 ART – Any course COMM – COMM 320 to 535 DANCE – Any course DEN – DEN 325, 450 ECON - ECON 120 to 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, 655, 670, 671

	FSHS – Any course GEOG – GEOG 100, 200, 201, 300 to 799 GWSS – Any course HIST – Any course Modern Language – Any course MUSIC – Any course PHILO – Any course POLSC – Any course PSYCH – Any course SOCIO – Any course SOCWK – Any course THTRE – Any course	
NOTE ~~Class work must include a minimum of 18 hours of classes from the approved list of K-State University K-State 8 General Education classes and must be taken at K-State. Six of the hours must be from classes at the 300 level or above. Requirements for transfer students vary depending on transfer hours accepted by K-State.~~	**NOTE** - Up to half of the credits required for a four-year degree may be completed at an accredited two-year institution. - Each student must complete at least 30 K-State resident credits to be considered for a degree from K-State. A student must complete 20 of the last 30 hours of resident credits through K-State. In other words, no more than 10 hours of transfer credit hours may be applied toward the last 30 hours you take for your degree. - A minimum of 45 hours must be taken at the course level of 300 or above. - Each student must satisfy K-State 8 general education requirements. K-State 8 can be met by both K-State and transfer courses.	**(7)**
Total credit hours required for graduation: (129)	**Total credit hours required for graduation: (129)**	

RATIONALE:

(1) Further *course categorization* was made. Current curriculum does not have categories that are descriptive of the requirements. “General requirements” overall category has been replaced with several specific categories and titled as “natural sciences”, “quantitative studies”, “communications”, business and economics”, “milling science core requirements”, and “operations option requirements”.

(2) A *communication elective block* was added. MSM did not have any communication course after COMM 105/106 which was a concern regarding soft skills of our students.

(3) A *management elective block* was added. This elective block adds flexibility to students’ selection of management electives as well as adding uniformity to the management electives required across all three departmental majors.

(4) Changes in *MSM core requirements*.
GRSC 101 Introduction to Grain Science and Industry was dropped from core requirement for two reasons. (i) GRSC 150/151 Principles of Milling and Lab serve as an introduction class for the milling science majors. (ii) Among the three GSI majors MSM is the most prescribed and tight curriculum. The three-hours gained from GRSC 101 will be used to add a *communication elective* as explained above.
GRSC 530 was moved from core requirement to the newly added *management electives* block.

(5) GRSC 541 was moved from *MSM Operation Option requirement* to the *specialization elective* block.

(6) New courses were added to the *specialization electives*: LEAD 212, 350, GRSC 615, and the entire list of the management electives.
LEAD 212, 350 will provide another option for our students to fulfill the global issues and diversity section of the K-State 8.
The courses listed under the management electives were also added to this section so that the students may utilize their unused management electives as specialization electives.
GRSC 201 Fundamental Baking Calculations was deleted from the specialization electives since MSM students rarely, if ever, enroll in GRSC 201.

(7) *Graduation requirements* were summarized in this section to provide quick guidelines for the advisors and the students.

(8) *Other changes***.** There are several corrections made due to "course title" changes which are concurrently addressed in Fall 2016 GSI course proposals.

IMPACT: **(1), (4), (5), (7), and (8).** No impact on other departments.

(2), (3), (6). The following Department Heads were contacted on October 3, 2016 regarding the proposed curriculum changes.

ACCTG (Dr. Brett Wilkinson) – responded that the Department of Accounting supports the continued listing of ACCTG 231, 241 and 331 provided enrollments do not change.

BUS (Dr. Chwen Sheu, csheu@ksu.edu and CBA Office of Student Services, cbastusv@ksu.edu) - Dr. Sheu responded that the Department of Management supports the use of ENTRP 340.

LEAD (Dr. Mary Hale Tolar, mtolar@ksu.edu) - She responded in support of the use of LEAD 212 and 350.

EFFECTIVE DATE: Fall 2017

Horticulture and Natural Resources

B.S. in (Wildlife and Outdoor Enterprise Management)

FROM:	TO:
General Requirements (67 credit hours) **Communications (9 credit hours)** COMM 106 – Public Speaking I (3) ENGL 100 – Expository Writing I (3) ENGL 200 – Expository Writing II (3) **Natural Sciences (16 hours)** BIOL 198 – Principles of Biology (4) BIOL 201 – Organismic Biology (5) CHM 110 – General Chemistry (3) CHM 111 – General Chemistry Lab (1) GEOL 100 – Earth in Action (3) or GEOG 300 – Geography of Tourism (3) **Social Systems (9 credit hours)** ECON 110 – Principles of Macroeconomics (3) ECON 120 – Principles of Microeconomics (3) SOCIO 211 – Introduction to Sociology (3) ~~or~~ ~~PSYCH 110 – General Psychology – 3~~ **Mathematics and Statistics (6 credit hours)** MATH 100 – College Algebra (3) STAT 350 – Business and Economics Statistics I (3) **Business (15 credit hours)** ACCTG 231 – Accounting for Business Operations (3) ACCTG 241 – Accounting for Investment & Finance (3) FINAN 450 – Principles of Finance (3) MANGT 420 – Management Concepts (3) MKTG 400 – Introduction to Marketing (3) **Hospitality (12 credit hours)** HM 220 – Environmental Issues in Hospitality (3) HM 341 – Principles of Food Production Management (3) HM 361 – Principles of Lodging Operations (3) HM 621 – Hospitality Law (3) **Wildlife and Outdoor Enterprise Management Core (~~55~~ credit hours)** **Natural Resources Management (~~35~~ credit hours)** AGRON 305 – Soils (4) AGRON 501 – Range Management (3) ASI 635 – Gamebird Production & Management (3)	**General Requirements (67 credit hours)** **Communications (9 credit hours)** COMM 106 – Public Speaking I (3) ENGL 100 – Expository Writing I (3) ENGL 200 – Expository Writing II (3) **Natural Sciences (16 hours)** BIOL 198 – Principles of Biology (4) BIOL 201 – Organismic Biology (5) CHM 110 – General Chemistry (3) CHM 111 – General Chemistry Lab (1) GEOL 100 – Earth in Action (3) or GEOG 300 – Geography of Tourism (3) **Social Systems (9 credit hours)** ECON 110 – Principles of Macroeconomics (3) ECON 120 – Principles of Microeconomics (3) SOCIO 211 – Introduction to Sociology (3) **Mathematics and Statistics (6 credit hours)** MATH 100 – College Algebra (3) STAT 350 – Business and Economics Statistics I (3) **Business (15 credit hours)** ACCTG 231 – Accounting for Business Operations (3) ACCTG 241 – Accounting for Investment & Finance (3) FINAN 450 – Principles of Finance (3) MANGT 420 – Management Concepts (3) MKTG 400 – Introduction to Marketing (3) **Hospitality (12 credit hours)** HM 220 – Environmental Issues in Hospitality (3) HM 341 – Principles of Food Production Management (3) HM 361 – Principles of Lodging Operations (3) HM 621 – Hospitality Law (3) **Wildlife and Outdoor Enterprise Management Core (51 credit hours)** **Natural Resources Management (46 credit hours)** AGRON 305 – Soils (4) AGRON 501 – Range Management (3) ASI 635 – Gamebird Production & Management (3)

BIOL 433 – Introduction to Fisheries, Wildlife, & Conservation Biology (3) PMC 275 – Introduction to Natural Resource Management (3) PMC 330 – Dendrology (3) WOEM 250 – Introduction to Wildlife & Outdoor Enterprise Management (1) WOEM 570 – Internship for WOEM (~~6-10~~) ~~WOEM 590 – Problems in WOEM (0-6)~~ WOEM 595 – WOEM Senior Seminar (1) WOEM 620 – Human-Wildlife Conflicts (4) ~~**Outdoor Skills, Guiding and Operations Courses (20 credit hours)**~~ ~~**Fishing**~~ ~~WOEM 565 – Principles & Practices of Freshwater Fishing and Guiding (3)~~ ~~**Hunting**~~ ~~WOEM 204 – Hunter Education Instructor (1)~~ WOEM 207 – ~~Wildlife Habitat/Food Plot Installation and Maintenance~~ (2) WOEM 555 – Big Game Management (3) WOEM 560 – Upland Gamebird Management (3) WOEM 561 – Waterfowl and Wetlands Management (3) **Shooting Sports** WOEM 201 – Firearms, Cartridges & Ballistics (1) WOEM 202 – Rifle & Handgun Range Design, Construction & Operations (1) WOEM 203 – Bowhunting Equipment & Skills (1) WOEM 205 – Sporting Clays Range Development & Operations (1) WOEM 206 – Trap & Skeet Range Development & Operations (1) **Unrestricted electives (8 credit hours)** Total Credit hours required for graduation (~~130~~)	BIOL 433 – Introduction to Fisheries, Wildlife, & Conservation Biology (3) PMC 275 – Introduction to Natural Resource Management (3) PMC 330 – Dendrology (3) WOEM 250 – Introduction to Wildlife & Outdoor Enterprise Management (1) WOEM 570 – Internship for WOEM (6) WOEM 595 – WOEM Senior Seminar (1) WOEM 620 – Human-Wildlife Conflicts (4) WOEM 207 – Introduction to Wildlife Habitat Management (2) WOEM 555 – Big Game Management (3) WOEM 560 – Upland Gamebird Management (3) WOEM 561 – Waterfowl and Wetlands Management (3) WOEM 562 – Advanced Wildlife Habitat Management (4) **Shooting Sports (5 credit hours)** WOEM 201 – Firearms, Cartridges & Ballistics (1) WOEM 202 – Rifle & Handgun Range Design, Construction & Operations (1) WOEM 203 – Bowhunting Equipment & Skills (1) WOEM 205 – Sporting Clays Range Development & Operations (1) WOEM 206 – Trap & Skeet Range Development & Operations (1) **Unrestricted electives (8 credit hours)** Total Credit hours required for graduation (126)

RATIONALE

This curriculum is revised to reduce total credit hours required, to reflect course name changes, the addition of a new advanced habitat management course, and to increase the scientific and theoretical rigor of the Wildlife and Outdoor Enterprise Management degree. However, the scope of the Wildlife and Outdoor Enterprise Management degree program remains to train professionals to manage private outdoor enterprises. PSYCH 110 is dropped as a Social Systems option because the course does not satisfy the Human Diversity within the U.S. K-State 8 requirement, while SOCIO 211 does. Students in the past have opted to take PSYCH 110 over SOCIO 211 not knowing that SOCIO 211 is the only course in our required curriculum that satisfies the Human Diversity K-State 8, and have then been unable to graduate on time. WOEM 204 is dropped from the curriculum because we were made aware that Hunter Education Instructor certification is available free of charge from Kansas

Department of Wildlife, Parks, and Tourism. WOEM 565 is replaced with WOEM 562 to better prepare students for the WOEM industry, increase the rigor of the WOEM curriculum, and reflect the expertise of WOEM teaching faculty. The reduction in total credit hours required for graduation reflects a previous reduction in required credits for WOEM 570 from 10 to 6 hours, and will better align the WOEM curriculum with the majority of other degrees in the College of Agriculture.

IMPACT — All substantive changes are internal to the Horticulture and Natural Resources Department. While the Wildlife and Outdoor Enterprise Management degree has similarities to degree programs offered in the Division of Biology, WOEM faculty are in ongoing discussions with faculty in the Division of Biology who approve of these changes.

EFFECTIVE DATE — Fall 2017

Plant Pathology

Plant Pathology Minor

FROM:	TO:
Plant Pathology Minor: **Required courses (5 credit hours):** PLPTH 500 - Principles of Plant Pathology **Credits:** 3 PLPTH 585 - Crop Diseases **Credits:** 2 or PLPTH 590 - Landscape Diseases **Credits:** 2 **Plus three additional hours in plant pathology~~, such as~~:** ~~**PLPTH 300 - Microbes, Plants, and the Human Perspective Credits: 3**~~ PLPTH 587 - Turfgrass Diseases and Their Management **Credits:** 1 or HORT 587 - Turfgrass Diseases and Their Management **Credits:** 1 PLPTH 610 - Biotechnology **Credits:** 3 or AGRON 610 - Biotechnology **Credits:** 3 PLPTH 730 - Plant Nematology **Credits:** 3 PLPTH 732 - Introduction to Plant Resistance to Pests **Credits:** 2 PLPTH 755 - Plant Resistance to Diseases **Credits:** 2 **~~At least~~ 7 additional credit ~~hours~~ from ~~the following~~:** Any other course in Plant Pathology AGRON 330 - Weed Science **Credits:** 3 AGRON 645 - Soil Microbiology **Credits:** 3 AGRON 646 - Soil Microbiology Laboratory **Credits:** 1 BIOL 455 - General Microbiology **Credits:** 4 BIOL 604 - Biology of the Fungi **Credits:** 3 ENTOM 300 - Economic Entomology **Credits:** ~~2 or~~ 3 or ENTOM 312 - General Entomology **Credits:** 3 ENTOM 320 - Horticultural Entomology **Credits:** 3 ENTOM 620 - Insecticides: Properties and Laws **Credits:** 2	**Plant Pathology Minor:** **Required courses (5 credit hours):** PLPTH 500 - Principles of Plant Pathology **Credits:** 3 PLPTH 585 - Crop Diseases **Credits:** 2 or PLPTH 590 - Landscape Diseases **Credits:** 2 **Plus three additional hours in plant pathology:** PLPTH **495** - Undergraduate Research in Plant Pathology **Credits:** 0-3 PLPTH 587 - Turfgrass Diseases and Their Management **Credits:** 1 or HORT 587 - Turfgrass Diseases and Their Management **Credits:** 1 PLPTH 599 - Problems in Plant Pathology Credits: 1-3 PLPTH 610 - Biotechnology **Credits:** 3 or AGRON 610 - Biotechnology **Credits:** 3 PLPTH 730 - Plant Nematology **Credits:** 3 PLPTH 732 - Introduction to Plant Resistance to Pests **Credits:** 2 PLPTH 755 - Plant Resistance to Diseases **Credits:** 2 **Select 7 additional credits from:** Any other course in Plant Pathology AGRON 330 - Weed Science **Credits:** 3 AGRON 645 - Soil Microbiology **Credits:** 3 AGRON 646 - Soil Microbiology Laboratory **Credits:** 1 BIOL 455 - General Microbiology **Credits:** 4 **BIOL 500 - Plant Physiology Credits: 3** BIOL 604 - Biology of the Fungi **Credits:** 3 **BIOL 675 - Genetics of Microorganisms Credits: 3** **BIOL 676 - Molecular Genetics Lab Credits: 3** **BIOL 687 - Microbial Ecology Credits: 3** **BIOL 690 - Microbial Physiology and Metabolism Credits: 2** **BIOL 705 - Eukaryotics Genetics Credits: 3** ENTOM 300 - Economic Entomology **Credits:** 3

ENTOM 745 - Plant Resistance to Insects **Credits:** 2 ENTOM 767 - Insect Pest Management **Credits:** 3 HORT 582 - Foundations of Horticultural Pest Management **Credits:** 1 HORT 588 - Turfgrass Weeds and Their Management **Credits:** 1 HORT 589 - Turfgrass Insects and Their Management **Credits:** 1 **Total credit hours: (15)**	or ENTOM 312 - General Entomology **Credits:** 3 ENTOM 320 - Horticultural Entomology **Credits:** 3 ENTOM 620 - Insecticides: Properties and Laws **Credits:** 2 ENTOM 745 - Plant Resistance to Insects **Credits:** 2 ENTOM 767 - Insect Pest Management **Credits:** 3 HORT 582 - Foundations of Horticultural Pest Management **Credits:** 1 HORT 588 - Turfgrass Weeds and Their Management **Credits:** 1 HORT 589 - Turfgrass Insects and Their Management **Credits:** 1 **Total credit hours: (15)**

RATIONALE: The faculty member who taught PLPTH 300 retired and the course will no longer be taught by the department. Since this course needed to be dropped, the department reviewed the Plant Pathology minor and took the opportunity to include some additional Biology courses.

IMPACT: PLPTH 300 is one of six elective plant pathology courses within the minor, so dropping it will not have an impact on the minor. Six additional courses from Biology were included as electives. Ruth Welti in Biology was contacted on September 23, 2016 and Dave Rintoul was contacted on October 7, 2016 seeking their approval for the inclusion of Biology courses in the Plant Pathology minor. No response has been received to date.

EFFECTIVE DATE: Fall 2017

Graduate Course and Curriculum additions and changes (11-1-16)

Non-Expedited Course Changes

Department of Landscape Architecture and Regional & Community Planning
(Master of Landscape Architecture Program, Non- & Post-Baccalaureate)
Course Change
Effective: *Spring 2017*
Impact on other units: *Geography. Department contacted Geography department head who communicated that there were no objections to listing GEOG 508 as a prerequisite for LAR 704.*

Change From:		Change To:	
LAR 704 Environmental Landscape Planning & Design ~~Introduction to and understanding of environmental planning, design and management of natural and social landscape systems at a regional, watershed, or ecosystem scale. Studies focus on systems inventory, analysis and impact assessment, and geoprocessing theory and methods.~~		**LAR 704 Environmental Landscape Planning & Design** Introduction to and understanding of environmental planning, design and management of natural and social landscape systems beyond site scale. The course focuses on theories, techniques and processes for designing sustainable landscapes and urban environments. Students will develop a final project starting with the conceptualization, through inventory, analysis and simulation, in order to develop a final design proposal.	
Credits:	(~~5~~)	Credits:	(3)
Pre-Requisites:	~~LAR 648~~	Pre-Requisites:	LAR 580, or GEOG 508 or equivalent, or instructor permission
When Offered:	Fall, Spring	When Offered:	Fall, Spring
K-State 8:	~~None~~	K-State 8:	Empirical and Quantitative Reasoning; Natural and Physical Sciences
K-State 8 Rationale:	*Empirical and Quantitative Reasoning; Natural and Physical Sciences (1) Apply quantitative methods for collecting, analyzing and synthesizing geospatial data to develop assessments of the physical environment and how a design or policy may impact the environment (2) Develop solutions (conceptual) by developing skills to support empirical data-driven design. Natural and Physical Sciences: (1) Students learn about basic landscape processes with regard to human, biotic and abiotic systems. (2) Students build knowledge through review and inventory to support data-driven designs to address environmental planning problems*		
Rationale:	*Splitting LAR 704 (currently a 5 credit hour course) into two separate laboratory and studio based courses to provide students more flexibility. LAR 704 will remain the studio based course and the proposed new course, LAR 580 will be the laboratory component.*		

Department of Management

CHANGE FROM:

MANGT ~~690~~ - International Management
Credits: 3
Examination of business decision parameters and strategy in a multinational context. The influence of cultural, economic, political, and social differences on decision making and the operation of American

enterprises in the international environment.

Requisites
Prerequisite: FINAN 450, MANGT 420, MKTG 400~~, or FINAN 710~~.
Typically Offered
Spring
UGE course
No
K-State 8
Global Issues and Perspectives
Social Sciences

CHANGE TO:

MANGT 590 - International Management
Credits: 3
Examination of business decision parameters and strategy in a multinational context. The influence of cultural, economic, political, and social differences on decision making and the operation of American enterprises in the international environment.
Requisites
Prerequisite: FINAN 450, MANGT 420, MKTG 400.
Typically Offered
Fall, Spring
UGE course
No
K-State 8
Global Issues and Perspectives
Social Sciences

Rationale
This is a follow-up amendment to support the recently approved changes to the management major. This course number change will facilitate the needed increase in number of sections of MANGT 690 International Management offered each year by permitting qualified instructors to teach the course. A separate proposal is being submitted to create an equivalent graduate level course (MANGT 890 International Management) that will continue to be taught by a member of the graduate faculty.

Impact on Other Units
None

Effective Date
Spring 2017

Art

FROM: ART 628 – Foreign Studies in Art History. (~~1-6~~) I, II. Participation in art history study abroad. K-State 8: ~~None. Pr.: 3 credit hours of art history and consent of instructor.~~

TO: ART 628 – Foreign Studies in Art History. (3-6) I, II, S. Participation in art history study abroad. K-State 8: Aesthetic Interpretation; Global Issues and Perspectives. Pr.: None.

K-STATE 8 RATIONALE: Students who take Art History as a study abroad course gain a perspective on cultural artifacts that is impossible to achieve through reproductions seen in the classroom. Students are able to more deeply develop their critical thinking skills by examining first hand the relationship between cultural

objects and the context within which they developed, be the subject (for instance) renaissance aft, the crafts of the bauhaus, or post modern conceptual art.

RATIONALE: By interacting directly with original art objects in their native contexts, students taking art history on a study abroad course are afforded one of the best ways to learn about art history. The department wants to open up this opportunity for students to earn credit for studying abroad to those who wish to engage first hand with visual culture and to those who may not have the room in their course schedules to take more than one art history class.

IMPACT: None

EFFECTIVE DATE: Spring 2017

FROM: ART 630 – Foreign Studies in Studio Art. (~~1-6~~) I, II, S. Participation in studio art study abroad.
K-State 8: ~~None. Pr.: 3 credits studio art and instructor permission.~~

TO: ART 630 – Foreign Studies in Art. (3-6) I, II, S. Participation in studio art study abroad. K-State 8: Aesthetic Interpretation; Global Issues and Perspectives. Pr.: instructor permission.

K-STATE 8 RATIONALE: The close study of artistic work in their original cultural setting will spark inspiration, heighten creativity, develop the capacity for aesthetic discernment, and afford the student the platform from which to make sense of, and see the connection between, the range of works that have influenced contemporary American culture. An understanding of artistic and cultural traditions beyond our own is an important component of preparing for a lifetime of creative and cultural engagement.

RATIONALE: The Art Department will be participating in the KSU in Orvieto Summer Study Abroad program being designed for Summer 2017. We need to edit out ART 630 Foreign studies in Art to reflect that it meets K-State 8 criteria. We also need to eliminate the prerequisites as this course will be open to all KSU students.
IMPACT: None
EFFECTIVE DATE: Summer 2017

FROM: ~~ANTH 694~~ – Osteology. (~~3~~) II, even years. Detailed study of human skeleton, with special attention to health and demographic conditions in prehistoric cultures and the evaluation of physical characteristics and genetic relationships of prehistoric populations. Pr.: ANTH 280 or instructor consent. K-State 8: Natural and physical Sciences.

TO: ANTH 683 – Osteology. (4) II, even years. Detailed study of human skeleton, with special attention to health and demographic conditions in prehistoric cultures and the evaluation of physical characteristics and genetic relationships of prehistoric populations. Laboratory demonstration and exercise in working with skeletal material for analysis of sex, age, stature, and race. Complete metric and nonmetric analysis with consideration given to paleodemography, paleopathology in situ analysis and excavation, and preservation. Pr.: ANTH 280 or instructor consent. K-State 8: Natural and Physical Sciences; Empirical and Quantitative Reasoning.

K-State 8 RATIONALE: This is a natural science course, which has a lab class with quantitative methods.

RATIONALE: Osteology currently requires a lab, and therefore there is no reason to have course (694) (3 credits) and the lab (695) (1 credit) separate. In the past, under a previous professor, a student could tale 694 & 695 separately, but now under no conditions may a student fail to take the lab concurrently with the course. Therefore, to avoid confusion, we would like to make 694 a 4-credit class, and delete the lab (695).

Because we are adding the lab work to 694, we are adding the K-State 8 component associated with the lab work: empirical and quantitative reasoning. The class number is being changed to fit the new rubric.

IMPACT: No impact

EFFECTIVE DATE: Spring 2017

Non-Expedited New Courses

Curriculum and Instruction

EDSP 800. Practicum II. (3) Fall, Spring. Observation and participation in teaching individuals with exceptional educational needs under the supervision of selected teachers in special education Pre-Requisite: EDSP 785 Practicum I.
IMPACT: No foreseeable impact.
RATIONALE: Addition of course to help avoid enrollment confusion for students taking multiple practica in the EDSP program.
EFFECTIVE DATE: Spring 2017

Department of Landscape Architecture and Regional & Community Planning
(Master of Landscape Architecture Program, Non- & Post-Baccalaureate)
New Courses
Effective: *Spring 2017*
Impact on other units: *None*

Course:	**LAR 811 Unlocking Creativity**
Catalog Description:	Do you want to become creative? Good news, you already are! For students in all majors, this course is designed to help you access your creative potential and become more imaginative, innovative, and courageous. Learning outcomes include overcoming blocks, refining your creative process, practicing activities to enhance creativity, and effectively communicating ideas.
Credits:	(3)
When Offered:	Fall, Spring
K-State 8:	Aesthetic Interpretation; Empirical and Quantitative Reasoning
K-State 8 Tag Rationale:	(1) Aesthetic Interpretation: Unlocking Creativity provides students with experiences to develop their understanding and responsiveness to literature and visual arts, and to a smaller extent performing arts. In the course, students will: Interpret artistic works of art and graphic communication; Read and create works of literature including observational writing, self-reflection, and poetry; Develop critical thinking in aesthetics by engaging in activities of drawing, diagramming, creative public presentation techniques, and film-making. (2) Empirical and Quantitative Reasoning: The course provides students with experiences to develop their abilities to gather information, develop and evaluate alternatives, and consider potential outcomes. In the course, students will: Learn about a variety of creative problem-solving processes and working methods; Engage in investigative processes aimed at deriving novel, tenable, and valuable solutions; Develop an individual creativity ethos and creative problem-solving process. Address complex real-world dilemmas and opportunities and propose solutions.
Rationale:	*Course has been offered under a topics number but we would like the course to have its own course number in order to cover K-State 8 tags. Two course numbers would be bound so that it may be taken as either undergraduate (311) or graduate credit (811). Students enrolled in LAR 811 will prepare a term paper with graduate-level scholarly rigor.*

Department of Landscape Architecture and Regional & Community Planning
(Master of Regional & Community Planning Program, Non- & Post-Baccalaureate)
New Courses
Effective: *Spring 2017*
Impact on other units: *None*

Course:	**PLAN 667 Transportation Planning**
Catalog Description:	The background, framing theories, professional activities and policy debates of transportation planning regarding transit, roads, non-motorized travel, energy use and climate change, land use, congestion, finance, economic development, health, safety, politics, asset management, politics, emerging technologies and the sharing economy.
Credits:	(3)
When Offered:	Fall, Spring
K-State 8:	Global Issues & Perspectives
K-State 8 Tag Rationale:	*Transportation represents a critical global policy issue that touches every facet of human endeavor. This class not only provides the policy context in a comparative perspective, but also addresses key planning concerns regarding sustainability and equity.*
Rationale:	*This new course has been offered once as a topics course and it will continue to be offered regularly so we would like it to have its own course number.*

Course:	**PLAN 670 Planning in POP Culture**
Catalog Description:	Planning in POP Culture is an exploratory educational adventure of regional and community planning issues through the cultural media of song, literature, visual art, and film
Credits:	(3)
When Offered:	Fall, Spring, Summer
K-State 8:	Ethical Reasoning & Responsibility; Human Diversity within the U.S.
K-State 8 Tag Rationale:	*(1) Ethical reasoning and responsibility: Through film, music, and other popular media students will be exposed to and discuss in depth issues regarding such topics as social equity and environmental conflicts with urban development. Students explore, from a planning context, how to properly navigate social and environmental concerns in an ethical and responsible manner. (2) Human Diversity within the U.S.: Through film, music, and other popular media students will be exposed to and discuss in depth issues regarding such topics as identity, race, ethnicity, nationality, multiculturalism, and more. Students will explore the context of human diversity in the U.S. through popular media and art, seeking insight to the messages from the artists' points of view is a wide array of contexts (urban, suburban, rural, and in distinct regions such as Southern Appalachia for example).*
Rationale:	*The course has been offered several times under a topics number and we would like to officially add it to the course catalog.*

Course:	**PLAN 672 Collective Decisions**
Catalog Description:	Provides an introduction to planning as a collective decision-making tool; examines how planners work within a decision-making environment to move from regional and community planning concepts to implementing plans.
Credits:	(3)
Requisites:	PLAN 315 or instructor permission
When Offered:	Fall, Spring
K-State 8:	Ethical Reasoning & Responsibility; Human Diversity within the U.S.
K-State 8 Tag Rationale:	*(1) Ethical reasoning and responsibility: Through an exploration of stakeholders in the planning process, students are exposed to collective decision-making in a manner that is both socially and environmentally ethical and responsible. This includes in-depth discussions and project based applications of the American Planning Association's Code of Ethics and*

	Professional Conduct for American Institute of Certified Planners and the Community Development Society's Principles of Good Practice. (2) Human Diversity within the U.S.: Through lectures, film, and hands-on projects, students will be exposed, discuss, and explore in depth issues regarding such topics as identity, race, ethnicity, nationality, multiculturalism, and more, in the planning context of collective decision-making.
Rationale:	*The course has been offered several times under a topics number and we would like to officially add it to the course catalog.*

Course:	**PLAN 674 Regional Economic Development Policy**
Catalog Description:	Introduce students to the theory & practice of economic development at the sub-national level. Evaluate the design and implementation of economic development activities.
Credits:	(3)
When Offered:	Fall, Spring
K-State 8:	Social Sciences
K-State 8 Tag Rationale:	*Economic development is the processes and policies that influence the well-being of individuals, families, groups, institutions and society as a whole. Students in this class will learn economic development theories and their application through policy intervention, studying the impact of economic development on quality of life and the natural environment.*
Rationale:	*The course has been offered several times under a topics number and we would like to officially add it to the course catalog.*

Department of Landscape Architecture and Regional & Community Planning
(Master of Science in Community Development)
(Graduate Certificate in Community Development)

New Courses
Effective: *Spring 2017*
Impact on other units: *None*

Course:	**CDPLN703 Applied Community Development**
Catalog Description:	This course provides students the opportunity to apply knowledge to professional practice. Students will produce a written report on a project of focus, which they have worked on directly, relating their experience to concepts and skills learned through the community development curriculum. Projects must exist at the time of the course and may consist of activities via internships, coursework or capstones outside of the community development curriculum, or personal interests.
Credits:	(1)
Requisites:	Admission to the MSCD program and instructor permission. All others contact gpideacc@ksu.edu.
When Offered:	Fall, Spring, Summer
Rationale:	*We plan on offering this new course regularly so we would like it to have its own course number rather than beginning as a topics course. The purpose of this new course is to formally recognize applied community development activities (such as internships) into our professionally focused program.*

Department of Landscape Architecture and Regional & Community Planning
(Master of Landscape Architecture Program, Non- & Post-Baccalaureate)

New Courses
Effective: *Summer 2017*
Impact on other units: *None*

Course:	**LAR 806 Portfolio Design**

Catalog Description:	The Portfolio Design course guides students in development of a professional portfolio of work, with the goal of producing a product that can be used for internship application, job search, or career advancement. Students explore visual thinking and visual communication with a culminating goal of producing a final portfolio.
Credits:	(3)
Requisites:	Graduate student standing and familiarity with Adobe Creative Suite or Creative Cloud software
When Offered:	Fall, Spring, Summer
Rationale:	*The course has been offered several times under a topics number and we would like to officially add it to the course catalog.*

Department of Landscape Architecture and Regional & Community Planning
(Master of Regional & Community Planning Program, Non- & Post-Baccalaureate)
New Courses
Effective: *Summer 2017*
Impact on other units: *None*

Course:	**PLAN 668 Travel Demand Modeling**
Catalog Description:	The history, evolving theory, application, and debates surrounding travel demand modeling. Instruction in one of the main travel demand modeling software packages. Practical use of that software.
Credits:	(3)
When Offered:	Fall, Spring, Summer
K-State 8:	Empirical & Quantitative Reasoning
K-State 8 Tag Rationale:	*Travel demand modeling applies quantitative reasoning through the analysis and display of information to the real world problem of exploring how changes in the built environment and the transportation infrastructure will affect the flow of people and goods. This course also provides an intensive introduction to a major software product used by transportation planning agencies throughout Kansas and the world.*
Rationale:	*We plan on offering this new course regularly so we would like it to have its own course number rather than beginning as a topics course.*

Center on Aging

Course Add

GERON 772 Adult Development and Aging

Credits: (3)

This course explores the biological, psychological, and social factors that are associated with aging. Although the focus is on the later years, information is presented from a life-span developmental framework. Empirical studies are reviewed and their strengths, limitations and implications for normative and optimal functioning are discussed.

When Offered: Spring

Other Requirements: Students properly enrolled in the Great Plains IDEA online Masters in Gerontology or online Graduate Certificate in Gerontology.

Rationale: Currently LSHD 845 Adult Development & Aging is available to KSU on-campus students, offered in spring semesters. Adult Development & Aging is a required course for students in the Great Plains IDEA online Masters in Gerontology, and is offered yearly – usually by one of the partner institutions. There is a need for a permanent GERON numbered course to be used specifically for those students in the online Masters in Gerontology and online Graduate Certificate in Gerontology. Currently a topics number (GERON 725) is used when this course is taught. The course will not be offered on-campus and will not be taken by regular KSU students unless requested and approved by Family Studies and Human Services. This class is taught primarily by faculty at one of the partner institutions within the Great Plains IDEA program.

IMPACT: The director of the School of Family Studies and Human Services was contacted on 7/28/16 and agreed that there would be no impact to their programs and would be supportive of this change.

Effective: Spring 2017

Course Add
GERON 773 Physical Health & Nutrition in Aging **Credits:** (3) This course identifies the basic physiologic changes during aging and their impacts in health and disease. The focus will be on successful aging with special emphasis on physical activity and nutrition. Practical application to community settings is addressed. **When Offered:** Fall **Other Requirements:** Students properly enrolled in the Great Plains IDEA online Masters in Gerontology or online Graduate Certificate in Gerontology.

Rationale: Currently FNDH 718 is available to KSU on-campus students, offered in spring semester of alternate odd numbered years according to the KSU graduate catalog. Physical Health and Nutrition in Aging is a required course for students in the online Great Plains IDEA Masters in Gerontology, and is offered yearly. There is a need for a permanent GERON numbered course to be used specifically for those students in the online Masters in Gerontology and online Graduate Certificate in Gerontology. Currently a topics number (GERON 725) is used when this course is taught. The course will not be offered on-campus and will not be taken by regular KSU students unless requested and approved by the Foods, Nutrition, Dietetics, and Health department head. This class is taught primarily by faculty at one of the partner institutions within the Great Plains IDEA program. The attached syllabus is the most recent available from a partner institution, where the course title varies slightly from what it will be named on the KSU campus.

IMPACT: The Foods, Nutrition, Dietetics, and Health department head has had conversations with the Center on Aging director in 2015 and again recently in spring 2016. Dr. Haub approves the plan for our department to add this course. It should have no direct impact on students in degree programs in FNDH. The gerontology department would allow FNDH students who wish to take the course online to enroll if space is available and at the request of the FNDH department.

Because the syllabus course title contains the term physical activity, the CHE Academic Affairs committee recommended the Department of Kinesiology be consulted. Dr. Gayle Doll, Center on Aging contacted Dr. Craig

Harms, Department Head, Kinesiology on September 12, 2016 to request approval of the course. Dr. Harms responded with approval of the new course offering on September 12, 2016.

Effective: Spring 2017

MANGT 890 International Management
Credits: (3)
Examination of business decision parameters and strategy in a multinational context. The influence of cultural, economic, political, and social differences on decision making and the operation of American enterprises in the international environment.

Requisites
Prerequisite: MANGT 820

Typically Offered
Spring

Rationale
We are splitting the current MANGT 690 International Management course into two course numbers, MANGT 590 for undergraduates and MANGT 890 for graduate students, in accordance with broader changes to the undergraduate management major. There will be one section of MANGT 590 that will be taught concurrently with MANGT 890 each spring by a member of the graduate faculty. The only difference from how this course is currently administered at the 600-level is that there will be two different course numbers. A separate proposal has been submitted to change the undergraduate course from MANGT 690 to MANGT 590.

Impact on Other Units
None

Effective Date
Spring 2017

Sociology, Anthropology, and Social Work

ADD: ANTH 608 – Asian Religions. (3) II, even years. Explore religious beliefs and practices in major traditions of South, Southeast, Central, and East Asia, such as Hinduism, Buddhism, Jainism, Sikhism, Confucianism, Taoism, Shinto, and later Buddhist movements. Pr.: ANTH 200, 204, or 210. K-State 8: Global Issues and Perspectives; Social Sciences.

K-State 8 RATIONALE: This is a social sciences course with global scope.

RATIONALE: K-State is sorely lacking in religious studies courses, as it does not have a religious studies department. Asian Religions is a staple college class, covering religions from India eastwards to Japan. In this course, I will teach Hinduism, Sikhism, Jainism, Buddhism (across Asia), Confucianism, Taoism, Shinto, etc. I have taught this course once as a Topics course and it filled immediately. It was successful, and popular; while there is enough interest in this topic to teach it every year, unfortunately given the many other classes in my rotation, I will only be able to offer it every two years. This is an advanced 600-level course, since it requires a heavy load of dense and sophisticated reading material about Asian philosophy, religious beliefs, and cultural practices. Finally, it should be noted that in preparation for teaching this class I received an NEH grant to take a summer seminar in Asian Buddhisms (in 2015), which helped broaden my expertise in South and Central Asian religion, and develop better proficiency in East Asian religious practices.

IMPACT: None

EFFECTIVE DATE: Spring 2017

Non-Expedited Course Drop

DROP: ANTH 695 – Laboratory in Osteology. (1) II, even years. Laboratory demonstration and exercise in working with skeletal material for analysis of sex, age, stature, and race. Complete metric and nonmetric analysis with consideration given to paleodemography, paleopathology in situ analysis and excavation, and preservation. Written reports on bone material remains will be necessary. Pr.: ANTH 694 or concurrent enrollment.

RATIONALE: We would like to discontinue the Osteology Lab (695), because we have submitted a change form to make 694 (Osteology) a 4-credit class with both lecture and lab included.

IMPACT: None

EFFECTIVE DATE: Spring 2017

Non-Expedited Curriculum Changes

Department of Landscape Architecture and Regional & Community Planning
(Master of Landscape Architecture Program, Non-Baccalaureate)
Effective Date: *Spring 2017*
Impact on Other Units: *None*
Rationale: *Splitting LAR 704 (currently a 5 credit hour course) into two separate laboratory and studio based courses to provide students more flexibility.*

FROM: (Current list of course for the curriculum, curriculum description, and admission criteria.)			**TO:** (Proposed list of courses for the curriculum, curriculum description, and admission criteria.)		
ENVIRONMENTAL DESIGN STUDIES PROGRAM			ENVIRONMENTAL DESIGN STUDIES PROGRAM		
FIRST Semester			FIRST Semester		
COMM 105	Public Speaking 1A	2	COMM 105	Public Speaking 1A	2
ENVD 201	Environmental Design Studio I	4	ENVD 201	Environmental Design Studio I	4
ENVD 203	Survey of Design Professions	1	ENVD 203	Survey of Design Professions	1
ENVD 250	History of the Designed Environment I	3	ENVD 250	History of the Designed Environment I	3
MATH 100	College Algebra	3	MATH 100	College Algebra	3
	*General Elective	3		*General Elective	3
		16			16
SECOND Semester			SECOND Semester		
ENGL 100	Expository Writing I	3	ENGL 100	Expository Writing I	3
ENVD 202	Environmental Design Studio II	4	ENVD 202	Environmental Design Studio II	4

ENVD 251	History of the Designed Environment II	3	ENVD 251	History of the Designed Environment II	3
PHYS 115	Descriptive Physics	5	PHYS 115	Descriptive Physics	5
		15			15
LANDSCAPE ARCHITECTURE PROGRAM THIRD Semester			LANDSCAPE ARCHITECTURE PROGRAM THIRD Semester		
LAR 220	Site Design Studio I	4	LAR 220	Site Design Studio I	4
LAR 310	Design Graphics & Visual Thinking	2	LAR 310	Design Graphics & Visual Thinking I	2
LAR 350	Landscape Architecture Plant Materials	3	LAR 350	Landscape Architecture Plant Materials	3
LAR 420	Natural Systems & Site Analysis	4	LAR 420	Natural Systems & Site Analysis	4
LAR 433	History & Theory of Landscape Arch.	3	LAR 433	History & Theory of Landscape Arch.	3
LAR 510	Landscape Architecture Tech Module I	1	LAR 510	Landscape Architecture Tech Module I	1
		17			17
FOURTH Semester			FOURTH Semester		
LAR 248	Landscape Arch Materials & Methods	3	LAR 248	Landscape Arch Materials & Methods	3
LAR 320	Site Design Studio II	5	LAR 320	Site Design Studio II	5
LAR 322	Environmental Issues & Ethics	3	LAR 322	Environmental Issues & Ethics	3
LAR 520	Landscape Architecture Tech Module II	1	LAR 520	Landscape Architecture Tech Module II	1
	Science Course with Lab	4		Science Course with Lab	4
		16			16
FIFTH Semester			FIFTH Semester		
ENGL 200	Expository Writing II	3	ENGL 200	Expository Writing II	3
LAR 410	Planting Design Studio	5	LAR 410	Planting Design Studio	5
LAR 438	Design Implementation I	4	LAR 438	Design Implementation I	4
LAR 530	Landscape Architecture Tech Module III	2	LAR 530	Landscape Architecture Tech Module III	2
PLAN 315	Introduction to City Planning	3	PLAN 315	Introduction to City Planning	3
		17			17
SIX Semester			SIX Semester		
LAR 010	Landscape Architecture Field Trip	0	LAR 010	Landscape Architecture Field Trip	0
LAR 439	Design Implementation II	4	LAR 439	Design Implementation II	4
LAR 442	Site Planning and Design Studio	5	LAR 442	Site Planning and Design Studio	5
LAR 501	Landscape Architecture Seminar I	2	LAR 501	Landscape Architecture Seminar I	2
LAR 540	Landscape Architecture Tech Module IV	1	LAR 540	Landscape Architecture Tech Module IV	1
	*General Elective	6		*General Elective	6
		18			18
SUMMER Study			SUMMER Study		
LAR 646	**Community Planning and Design**	**5**	**LAR 646**	**Community Planning and Design**	**5**
LAR 650	**Landscape Architecture Seminar II**	**2**	**LAR 650**	**Landscape Architecture Seminar II**	**2**
		7			7
SEVENTH Semester			SEVENTH Semester		
LAR 444	Career Planning Seminar	1	LAR 444	Career Planning Seminar	1
LAR 550	Landscape Architecture Tech Module V	2	LAR 550	Landscape Architecture Tech Module V	2

LAR 648	**LA Specialization Studio**	**5**
LAR 725	**Landscape Architecture Research Methods**	**3**
LAR 750	**Landscape Architecture Seminar III**	**2**
LAR 754	Professional Practice: Office Practices	1
		14

EIGHTH Semester**		
LAR 703	Landscape Architecture Off Campus Studio (Internship, study abroad or KCDC)	5
	Professional Electives	9
+LAR 897	**Proposal Writing**	**2**
		14-16

NINTH Semester		
LAR 645	Professional Internship Report	1
LAR 704	**Environmental Land Plan & Design**	~~**5**~~
LAR 700	**Project Programming**	**3**
+LAR 899	**Research in Landscape Architecture**	**3**
LAR 753	Professional Practices: Professional Responsibilities	**1**
	Professional Elective	**3**
	*General Elective	3
		16

TENTH Semester		
LAR 560	Landscape Architecture Tech Module VI	1
LAR 705	**Master's Project**	**3**
LAR 898	**Master's Report**	**2**
+LAR 899	**Research in Landscape Architecture**	**3**
	*General Elective	3
		7-9

Undergraduate Hours	~~126~~
Graduate Hours	~~33~~
Total (MLA) Degree Requirement	159

The K-State 8 General Education areas are covered by courses required in the Landscape Architecture curriculum. Information about the K-State 8 is available on the web and in the university catalog.

All required courses taught in the landscape architecture and regional and community planning programs that are counted toward the degree must be passed with a grade of C or better.

*A minimum of fifteen (15) general elective credits must be taken. General elective may be taken in

LAR 648	**LA Specialization Studio**	**5**
LAR 725	**Landscape Architecture Research Methods**	**3**
LAR 750	**Landscape Architecture Seminar III**	**2**
LAR 754	Professional Practice: Office Practices	1
		14

EIGHTH Semester**		
LAR 703	Landscape Architecture Off Campus Studio (Internship, study abroad or KCDC)	5
	Professional Electives	9
+LAR 897	**Proposal Writing**	**2**
		14-16

NINTH Semester		
LAR 645	Professional Internship Report	1
LAR 704	**Environmental Land Plan & Design**	**3**
LAR 580	Planning & Design Intro to GIS	2
LAR 700	**Project Programming**	**3**
+LAR 899	**Research in Landscape Architecture**	**3**
LAR 753	Professional Practices: Professional Responsibilities	1
	Professional Elective	**3**
	*General Elective	3
		16

TENTH Semester		
LAR 560	Landscape Architecture Tech Module VI	1
LAR 705	**Master's Project**	**3**
LAR 898	**Master's Report**	**2**
+LAR 899	**Research in Landscape Architecture**	**3**
	*General Elective	3
		7-9

Undergraduate Hours	128
Graduate Hours	31
Total (MLA) Degree Requirement	159

The K-State 8 General Education areas are covered by courses required in the Landscape Architecture curriculum. Information about the K-State 8 is available on the web and in the university catalog.

All required courses taught in the landscape architecture and regional and community planning programs that are counted toward the degree must be passed with a grade of C or better.

*A minimum of fifteen (15) general elective credits must be taken. General elective may be taken in

pursuit of a minor. They may be taken any time prior to or during the Landscape Architecture program and may include KSU approved AP, IB, CLEP and transfer credit. Students may not count more than three (3) total hours of recreation credits toward graduation. **Eighth semester: Two distinct study opportunities are offered during this semester, each requiring 14 credit hours. The study abroad and the internship options have course requirements that substitute for the 9 professional elective credit requirements. If the internship option is not selected during the eighth semester, a summer internship is required before graduation. + If a student elects the thesis option, LAR 897-Proposal Writing will be taken during the eighth semester for 2 credit hours. This course is completed by advance arrangement. LAR 897 students work independently to develop their thesis proposal with their major professor's supervision. LAR 899-Research in Landscape Architecture will be taken in the ninth semester in place of LAR 700 and in the tenth semester in place of LAR 705 and LAR 898.	pursuit of a minor. They may be taken any time prior to or during the Landscape Architecture program and may include KSU approved AP, IB, CLEP and transfer credit. Students may not count more than three (3) total hours of recreation credits toward graduation. **Eighth semester: Two distinct study opportunities are offered during this semester, each requiring 14 credit hours. The study abroad and the internship options have course requirements that substitute for the 9 professional elective credit requirements. If the internship option is not selected during the eighth semester, a summer internship is required before graduation. + If a student elects the thesis option, LAR 897-Proposal Writing will be taken during the eighth semester for 2 credit hours. This course is completed by advance arrangement. LAR 897 students work independently to develop their thesis proposal with their major professor's supervision. LAR 899-Research in Landscape Architecture will be taken in the ninth semester in place of LAR 700 and in the tenth semester in place of LAR 705 and LAR 898.

Department of Landscape Architecture and Regional & Community Planning
(Master of Landscape Architecture Program-Post-Baccalaureate)

Effective Date: *Spring 2017*
Impact on Other Units: *None*
Rationale: *Splitting LAR 704 (currently a 5 credit hour course) into two separate laboratory and studio based courses to provide students more flexibility.*

FROM: (Current list of course for the curriculum, curriculum description, and admission criteria.)			**TO:** (Proposed list of courses for the curriculum, curriculum description, and admission criteria.)		
FIRST Semester			FIRST Semester		
LAR 220	Site Design Studio I	4	LAR 220	Site Design Studio I	4
LAR 310	Design Graphics & Visual Thinking	2	LAR 310	Design Graphics & Visual Thinking	2
LAR 420	Natural Systems & Site Analysis	4	LAR 420	Natural Systems & Site Analysis	4
LAR 433	History & Theory of Landscape Arch	3	LAR 433	History & Theory of Landscape Arch	3
LAR 510	Landscape Architecture Tech Module I	1	LAR 510	Landscape Architecture Tech Module I	1
		14			14
SECOND Semester			SECOND Semester		
LAR 248	Landscape Arch Materials & Methods	3	LAR 248	Landscape Arch Materials & Methods	3
LAR 322	Environmental Issues & Ethics	3	LAR 322	Environmental Issues & Ethics	3
LAR 442	Site Planning and Design Studio	5	LAR 442	Site Planning and Design Studio	5
LAR 501	Landscape Architecture Seminar I	2	LAR 501	Landscape Architecture Seminar I	2
LAR 520	Landscape Architecture Tech Module II	1	LAR 520	Landscape Architecture Tech Module II	1
LAR 010	Landscape Architecture Field Trip	0	LAR 010	Landscape Architecture Field Trip	0
		14			14

SUMMER Study			SUMMER Study		
LAR 646	**Community Planning and Design**	**5**	**LAR 646**	**Community Planning and Design**	**5**
LAR 650	**Landscape Architecture Seminar II**	**2**	**LAR 650**	**Landscape Architecture Seminar II**	**2**
		7			7
THIRD Semester			THIRD Semester		
LAR 350	Landscape Architecture Plant Materials	3	LAR 350	Landscape Architecture Plant Materials	3
LAR 410	Planting Design Studio	5	LAR 410	Planting Design Studio	5
LAR 438	Design Implementation I	4	LAR 438	Design Implementation I	4
LAR 530	Landscape Architecture Tech Module III	2	LAR 530	Landscape Architecture Tech Module III	2
LAR 725	**Landscape Architecture Research Methods**	**3**	**LAR 725**	**Landscape Architecture Research Methods**	**3**
LAR 754	Professional Practice: Office Practices	1	LAR 754	Professional Practice: Office Practices	1
		18			18
FOURTH Semester			FOURTH Semester		
LAR 439	Design Implementation II	4	LAR 439	Design Implementation II	4
LAR 704	**Environmental Land Plan & Design**	**~~5~~**	**LAR 704**	**Environmental Land Plan & Design**	**3**
			LAR 580	Planning & Design Intro to GIS	2
LAR 540	Landscape Architecture Tech Module IV	1	LAR 540	Landscape Architecture Tech Module IV	1
	Professional Elective	3		Professional Elective	3
+LAR 897	**Proposal Writing**	**2**	**+LAR 897**	**Proposal Writing**	**2**
		13-15			13-15
FIFTH Semester			FIFTH Semester		
LAR 648	**LA Specialization Studio**	**5**	**LAR 648**	**LA Specialization Studio**	**5**
LAR 750	**Landscape Architecture Seminar III**	**2**	**LAR 750**	**Landscape Architecture Seminar III**	**2**
LAR 700	**Project Programming**	**3**	**LAR 700**	**Project Programming**	**3**
+LAR 899	**Research in Landscape Architecture**	**3**	**+LAR 899**	**Research in Landscape Architecture**	**3**
LAR 550	Landscape Architecture Tech Module V	2	LAR 550	Landscape Architecture Tech Module V	2
LAR 753	Professional Practices: Professional Responsibilities	1	LAR 753	Professional Practices: Professional Responsibilities	1
		13			13
SIXTH Semester			SIXTH Semester		
LAR 560	Landscape Architecture Tech Module VI	1	LAR 560	Landscape Architecture Tech Module VI	1
LAR 705	**Master's Project**	**3**	**LAR 705**	**Master's Project**	**3**
LAR 898	**Master's Report**	**2**	**LAR 898**	**Master's Report**	**2**
+LAR 899	**Research in Landscape Architecture**	**3**	**+LAR 899**	**Research in Landscape Architecture**	**3**
		~~4-6~~			4-6
Undergraduate Hours		~~52~~	Undergraduate Hours		54
Graduate Hours		~~33~~	Graduate Hours		31
Total (MLA) Degree Requirement		85	Total (MLA) Degree Requirement		85
All students will complete either a Master's Report or a Master's Thesis.			All students will complete either a Master's Report or a Master's Thesis.		

+ If a student elects the thesis option, LAR 897 Proposal Writing will be taken during the fourth semester for 2 credit hours. LAR 899 Research in Landscape Architecture will be taken in both the fifth semester in place of LAR 700 and in the sixth semester in place of LAR 705 and LAR 898. Total credit hours required for graduate school program of study=~~35~~. All required courses taught in the landscape architecture and regional & community planning programs that are counted toward the degree must be passed with a grade of C or better.	+ If a student elects the thesis option, LAR 897 Proposal Writing will be taken during the fourth semester for 2 credit hours. LAR 899 Research in Landscape Architecture will be taken in both the fifth semester in place of LAR 700 and in the sixth semester in place of LAR 705 and LAR 898. Total credit hours required for graduate school program of study=31. All required courses taught in the landscape architecture and regional & community planning programs that are counted toward the degree must be passed with a grade of C or better.

Department of Landscape Architecture and Regional & Community Planning
(Master of Regional & Community Planning Program-Non-Baccalaureate)

Effective Date: *Spring 2017*
Impact on Other Units: *None*
Rationale: *-Splitting LAR 704 (currently a 5 credit hour course) into two separate laboratory and studio based courses to provide students more flexibility.*
-Instructor of PLAN 650 is no longer with the department and many elements of the course are covered in other required coursework. Transportation planning will be added to the curriculum in its place as it is an integral facet of the planning profession.

FROM: (Current list of course for the curriculum, curriculum description, and admission criteria.)			**TO:** (Proposed list of courses for the curriculum, curriculum description, and admission criteria.)		
ENVIRONMENTAL DESIGN STUDIES PROGRAM First Semester			ENVIRONMENTAL DESIGN STUDIES PROGRAM First Semester		
ENVD 203	Survey of the Design Professions	1	ENVD 203	Survey of the Design Professions	1
MATH 100	College Algebra	3	MATH 100	College Algebra	3
COMM 105	Public Speaking 1A	2	COMM 105	Public Speaking 1A	2
	Humanities/Design Elective	3		Humanities/Design Elective	3
	Social Science/History Elective	3		Social Science/History Elective	3
	Social Science/Sociology Elective	3		Social Science/Sociology Elective	3
		15			15
Second Semester			Second Semester		
ENGL 100	Expository Writing I	3	ENGL 100	Expository Writing I	3
	Humanities/Design Electives	6		Humanities/Design Electives	6
	Natural Science Elective with Lab	4		Natural Science Elective with Lab	4
	*General Elective	3		*General Elective	3
		16			16
REGIONAL & COMMUNITY PLANNING PROGRAM Third Semester			REGIONAL & COMMUNITY PLANNING PROGRAM Third Semester		
PLAN 315	Introduction to City Planning	3	PLAN 315	Introduction to City Planning	3

PLAN 316	Planning Principles Seminar	2	PLAN 316	Planning Principles Seminar	2
PLAN 510	Tech Module	1	PLAN 510	Tech Module	1
LAR 420	Natural Systems & Site Analysis	4	LAR 420	Natural Systems & Site Analysis	4
	Social Science/Economics Elective	3		Social Science/Economics Elective	3
	*General Elective	3		*General Elective	3
		16			16
Fourth Semester			Fourth Semester		
PLAN 415	World Cities	3	PLAN 415	World Cities	3
LAR 322	Environmental Issues & Ethics	3	LAR 322	Environmental Issues & Ethics	3
ENGL 200	Expository Writing II	3	ENGL 200	Expository Writing II	3
	Statistics Elective	3		Statistics Elective	3
	Social Science/Geography Elective	3		Social Science/Geography Elective	3
	*General Elective	3		*General Elective	3
		18			18
Fifth Semester			Fifth Semester		
PLAN 640	Urban Design and Development	3	PLAN 640	Urban Design and Development	3
PLAN 660	Community Development Planning	3	PLAN 660	Community Development Planning	3
LAR 704	Env Landscape Planning and Design	~~5~~	LAR 704	Env Landscape Planning and Design	3
			LAR 580	Planning & Design Intro to GIS	2
	Natural Science Elective	3		Natural Science Elective	3
	Social Science/Political Science Elective	3		Social Science/Political Science Elective	3
		17			17
Sixth Semester			Sixth Semester		
~~PLAN 650~~	~~Housing & Development Programs~~	~~3~~	PLAN 667	Transportation Planning	3
PLAN 655	Land Development Planning	3	PLAN 655	Land Development Planning	3
LAR 500	Site Planning and Design	3	LAR 500	Site Planning and Design	3
PLAN 010	Planning Field Trip	0	PLAN 010	Planning Field Trip	0
	**Professional Electives	6		**Professional Electives	6
		15			15
Seventh Semester			Seventh Semester		
PLAN 720	**Infrastructure & Plan Implementation**	**3**	**PLAN 720**	**Infrastructure & Plan Implementation**	**3**
PLAN 801	**Planning Methods I**	**3**	**PLAN 801**	**Planning Methods I**	**3**
PLAN 803	**Community Research Methods**	**3**	**PLAN 803**	**Community Research Methods**	**3**
	Professional Elective	**3**		**Professional Elective**	**3**
PLAN 444	Internship Planning Seminar	1	PLAN 444	Internship Planning Seminar	1
		13			13

Eighth Semester***			Eighth Semester***		
PLAN 703	Off Campus Studies	5	PLAN 703	Off Campus Studies	5
	(Internship, study abroad or KCDC)			(Internship, study abroad or KCDC)	
	Professional Electives	7-9		Professional Electives	7-9
+**PLAN 897**	**Proposal Writing**	**2**	+**PLAN 897**	**Proposal Writing**	**2**
		14-16			14-16
Ninth Semester			Ninth Semester		
PLAN 730	**Planning Administration**	**3**	**PLAN 730**	**Planning Administration**	**3**
PLAN 753	**Planning Law**	**3**	**PLAN 753**	**Planning Law**	**3**
PLAN 897	**Proposal Writing**	**3**	**PLAN 897**	**Proposal Writing**	**3**
	Professional Elective	**3**		**Professional Elective**	**3**
+**PLAN 899**	**Research in Planning**	**3**	+**PLAN 899**	**Research in Planning**	**3**
		12-15			12-15
Tenth Semester			Tenth Semester		
PLAN 815	**Planning Theory, Ethics & Practice**	**3**	**PLAN 815**	**Planning Theory, Ethics & Practice**	**3**
PLAN 836	**Community Plan Preparation**	**3**	**PLAN 836**	**Community Plan Preparation**	**3**
or **PLAN 705**	**Master's Project**		or **PLAN 705**	**Master's Project**	
PLAN 898	**Master's Report**	**2**	**PLAN 898**	**Master's Report**	**2**
	Professional Elective	**3**		**Professional Elective**	**3**
+**PLAN 899**	**Research in Planning**	**3**	+**PLAN 899**	**Research in Planning**	**3**
		9-11			9-11
Undergraduate Hours		112	Undergraduate Hours		112
Graduate Hours		35	Graduate Hours		35
Total MRCP Degree Requirement		147	Total MRCP Degree Requirement		147

*A minimum of nine (9) general elective credits must be taken. General electives may be taken in pursuit of a minor. They may be taken any time prior to or during the Regional and Community Planning program and may include KSU approved AP, IB, CLEP and transfer credit. Students may not count more than three (3) total hours of recreation credits toward graduation.

**Professional Electives must include 6 undergraduate credit hours of PLAN courses.

***Eighth semester: Two distinct study opportunities are offered during this semester, each requiring 14 credit hours. The study abroad and internship options

*A minimum of nine (9) general elective credits must be taken. General electives may be taken in pursuit of a minor. They may be taken any time prior to or during the Regional and Community Planning program and may include KSU approved AP, IB, CLEP and transfer credit. Students may not count more than three (3) total hours of recreation credits toward graduation.

**Professional Electives in the sixth semester must include 6 undergraduate credit hours of PLAN courses.

All required courses taught in the landscape architecture and regional & community planning

have course requirements that substitute for the 9 professional elective credit requirements All students will complete either a Master's Report or a Master's Thesis. +If a student elects the thesis option, PLAN 897 Proposal Writing will be taken during the eighth semester for 2 credit hours. This course is completed by advance arrangement. PLAN 897 students work independently to develop their thesis proposal with their major professor's supervision. PLAN 899 Research in Planning will be taken in the ninth semester in place of PLAN 897 and in the tenth semester in place of PLAN 705, PLAN 898 and the professional elective. ~~All required courses taught in the landscape architecture and regional & community planning programs that are counted toward the degree must be passed with a grade of C or better.~~ The K-State 8 General Education areas are covered by courses required in the Regional and Community Planning curriculum. Information about the K-State 8 is available at http://www.k-state.edu/kstate8 and in the university catalog. Total credit hours required for Graduate School program of study = 35.	programs that are counted toward the degree must be passed with a grade of C or better. ***Eighth semester: Two distinct study opportunities are offered during this semester, each requiring 14 credit hours. The study abroad and internship options have course requirements that substitute for the 9 professional elective credit requirements. All students will complete either a Master's Report or a Master's Thesis. +If a student elects the thesis option, PLAN 897 Proposal Writing will be taken during the eighth semester for 2 credit hours. This course is completed by advance arrangement. PLAN 897 students work independently to develop their thesis proposal with their major professor's supervision. PLAN 899 Research in Planning will be taken in the ninth semester in place of PLAN 897 and in the tenth semester in place of PLAN 705, PLAN 898 and the professional elective. The K-State 8 General Education areas are covered by courses required in the Regional and Community Planning curriculum. Information about the K-State 8 is available at http://www.k-state.edu/kstate8 and in the university catalog. Total credit hours required for Graduate School program of study = 35.

Department of Landscape Architecture and Regional & Community Planning
(Master of Regional & Community Planning Program-Post-Baccalaureate)

Effective Date: *Spring 2017*
Impact on Other Units: *None*
Rationale: *Instructor of PLAN 650 is no longer with the department and many elements of the course are covered in other required coursework. Transportation planning will be added to the curriculum in its place as it is an integral facet of the planning profession.*

FROM: (Current list of course for the curriculum, curriculum description, and admission criteria.)			**TO:** (Proposed list of courses for the curriculum, curriculum description, and admission criteria.)		
First Semester			First Semester		
PLAN 315	Introduction to City Planning	3	PLAN 315	Introduction to City Planning	3
PLAN 316	Planning Principles Seminar	2	PLAN 316	Planning Principles Seminar	2
PLAN 801	**Planning Methods I**	**3**	**PLAN 801**	**Planning Methods I**	**3**
PLAN 803	**Community Research Methods**	**3**	**PLAN 803**	**Community Research Methods**	**3**
	Professional Elective	**3**		**Professional Elective**	**3**
		14			14
Second Semester			Second Semester		
PLAN 010	Planning Field Trip	0	PLAN 010	Planning Field Trip	0
LAR 500	Site Planning and Design	3	LAR 500	Site Planning and Design	3

~~PLAN 650~~	~~Housing & Development Programs~~	~~3~~
PLAN 655	Land Development Planning	3
PLAN 897	**Proposal Writing**	**3**
	Professional Electives*	6
		15-17

PLAN 667	Transportation Planning	3
PLAN 655	Land Development Planning	3
PLAN 897	**Proposal Writing**	**3**
	Professional Electives*	6
		15-17

Third Semester		
PLAN 720	**Infrastructure & Plan Implementation**	**3**
PLAN 730	**Planning Administration**	**3**
PLAN 753	**Planning Law**	**3**
+PLAN 897	**Proposal Writing**	**2**
+PLAN 899	**Research in Planning**	**3**
	Professional Elective	3
		15

Third Semester		
PLAN 720	**Infrastructure & Plan Implementation**	**3**
PLAN 730	**Planning Administration**	**3**
PLAN 753	**Planning Law**	**3**
+PLAN 897	**Proposal Writing**	**2**
+PLAN 899	**Research in Planning**	**3**
	Professional Elective	3
		15

Fourth Semester		
PLAN 815	**Planning Theory, Ethics & Practice**	**3**
PLAN 836 or **PLAN 705**	**Community Plan Preparation** **Master's Project**	**3**
PLAN 898	**Master's Report**	**2**
	Professional Elective	**3**
+PLAN 899	**Research in Planning**	**3**
		9-11

Fourth Semester		
PLAN 815	**Planning Theory, Ethics & Practice**	**3**
PLAN 836 or **PLAN 705**	**Community Plan Preparation** **Master's Project**	**3**
PLAN 898	**Master's Report**	**2**
	Professional Elective	**3**
+PLAN 899	**Research in Planning**	**3**
		9-11

Undergraduate Hours	20
Graduate Hours	35
Total MRCP Degree Requirement	55

Undergraduate Hours	20
Graduate Hours	35
Total MRCP Degree Requirement	55

All students will complete either a Master's Report or a Master's Thesis.

+If a student elects the thesis option, PLAN 897 Proposal Writing will be taken during the second semester for 2 credit hours. This course is completed by advance arrangement. PLAN 897 students work independently to develop their thesis proposal with their major professor's supervision. PLAN 899 Research in Planning will be taken in the third semester in place of PLAN 897 and in the fourth semester in place of PLAN 705, PLAN 898 and the professional elective.

*Professional Electives in the second semester must include 6 undergraduate credit hours of PLAN courses.

All required courses taught in the landscape architecture and regional & community planning programs that are counted toward the degree must be passed with a grade of C or better.

All students will complete either a Master's Report or a Master's Thesis.

+If a student elects the thesis option, PLAN 897 Proposal Writing will be taken during the second semester for 2 credit hours. This course is completed by advance arrangement. PLAN 897 students work independently to develop their thesis proposal with their major professor's supervision. PLAN 899 Research in Planning will be taken in the third semester in place of PLAN 897 and in the fourth semester in place of PLAN 705, PLAN 898 and the professional elective.

*Professional Electives in the second semester must include 6 undergraduate credit hours of PLAN courses.

All required courses taught in the landscape architecture and regional & community planning programs that are counted toward the degree must be passed with a grade of C or better.

Total credit hours required for Graduate School program of study = 35	Total credit hours required for Graduate School program of study = 35

Statistics

Statistics (M.S.)

FROM:

TO:

Two master's degree options are available through the Statistics graduate program: the master's report options and the nonreport option. • For the master's report options, the student must take 30 hours of coursework and write a report for 2 additional hours of credit. • For the nonreport option, the student must take 35 hours of coursework and pass a comprehensive exam approved by the supervisory committee. The master's report option is strongly recommended for all students, especially those for whom the master's degree will be the terminal degree.	Two master's degree options are available through the Statistics graduate program: the master's report options and the nonreport option. • For the master's report options, the student must take 30 hours of coursework and write a report for 2 additional hours of credit. • For the nonreport option, the student must take 36 hours of coursework and pass a comprehensive exam approved by the supervisory committee. The master's report option is strongly recommended for all students, especially those for whom the master's degree will be the terminal degree.
REQUIRED COURSES In either case, the coursework must include: • STAT 713 - Applied Linear Statistical Models **Credits:** (3) • STAT 770 - Theory of Statistics I **Credits:** (3) • STAT 771 - Theory of Statistics II **Credits:** (3) • STAT 860 - Linear Models I **Credits:** (3) ***Either:*** • STAT 720 - Design of Experiments **Credits:** (3) • or	***REQUIRED COURSES*** In either case, the coursework must include: • STAT 713 - Applied Linear Statistical Models **Credits:** (3) • STAT 770 - Theory of Statistics I **Credits:** (3) • STAT 771 - Theory of Statistics II **Credits:** (3) • STAT 860 - Linear Models I **Credits:** (3) ***Either:*** • STAT 720 - Design of Experiments **Credits:** (3) • or

• STAT 722 - Experimental Design for Product Development and Quality Improvement **Credits:** (3) ~~***and at least one credit of***~~ • ~~STAT 945 - Problems in Statistical Consulting **Credits:** (1)~~	• STAT 722 - Experimental Design for Product Development and Quality Improvement **Credits:** (3) Note: Students planning to pursue the PhD in Statistics at K-State are required to take STAT 720.

RATIONALE: We are making STAT 945 optional rather than required to accommodate different student interests and future plans they might have. Also a clarification on the choice between STAT 720 and 722 is made for students continuing to a PhD. The number of credit hours for the nonreport option is also incorrect and is corrected below.

IMPACT: No impact on other programs. Since this course will be an elective, there is no change to the list of course for the curriculum due to this course below. There are two other changes made as described above under rationale.

EFFECTIVE DATE: Spring 2017