# Supplemental Information
# Course and Curriculum items
# FS Academic Affairs Committee Review
# May 16, 2017 Meeting

**Graduate course and curriculum changes (5-2-17)**

Pages 1-24 (new graduate curriculum proposals in a separate file)

**College of Business Administration (3-15-17)**

Pages 25-33

Pages 34-56 New Major in Professional Selling Strategy

**College of Engineering (4-6 & 27-17)**

Page 57-61

**College of Education (4-25-17)**

Page 62-67

# Graduate course and curriculum changes (5-2-17)

## *Non-Expedited New Courses*

**AGEC 751, Risk Management Fellows Seminar**
**Credits (1)**

This course serves as The Center for Risk Management Education and Research Student Fellows seminar course. Students will conduct a risk management research project.

**When Offered:** Fall, Spring, Summer

**Prerequisite:** Junior standing, admitted to the Risk Management Fellows Program, and consent of the instructor.

Repeatable Course

**Rationale:** For several semesters now, Center for Risk Management Education and Research Student Fellows have been enrolling in the course AGEC 750 Agricultural Economics and Agribusiness Problems as their seminar course. The Student Fellows are from various academic disciplines at K-State, and this is a multi-disciplinary program led by the Department and Agricultural Economics with the Departments of Finance and Industrial and Manufacturing Systems Engineering. Given the growth in the program and for clarity for students, faculty, and staff, it is appropriate for this course to now have its own permanent number.

**Impact**: No impact on other departments.

**Effective Term**: Spring 2018

**ENTOM 810, Insect Pest Management**
**Credits (3)**

The theory and practice of Integrated Pest Management (IPM) with an emphasis on pests in agricultural systems. Integrated concepts include but are not limited to economic thresholds, sampling plans, plant resistance to insects, biological control, pesticides and resistance management. Case studies from several row-crop systems are used to explore key concepts.

**When Offered:** Spring, Even Years

**Prerequisite:** ENTOM 300 or ENTOM 312 or consent of the instructor.

**Rationale:** This course will provide students with enhanced curriculum to acquire strong quantitative reasoning and analytical skills in the area of Integrated Pest Management. Course content will follow a “theory-then-practice” delivery structure. One week will be structured as a discussion around a key topic area within IPM (e.g., biological control, host plant resistance, sampling method and design, etc.) and the following week will include practice or "hands-on" exercises associated with the topic area (e.g., experimental design, statistical analyses, data computation, etc.). Content will include IPM examples from outside of entomology (e.g., plant pathology, weeds, cropping systems or integrated crop management, horticulture) based on student interest. This format could draw students from other departments (e.g., agronomy, plant pathology, horticulture, grain science, agricultural economics).

**Impact**: No impact beyond the College of Agriculture.

**Effective Term**: Spring 2018

**EDSP 615. Manual Communications II**. (3) Offered Based on Need. This course is a continuation in the instruction of American Sign Language. This will include approximately 400 additional signs. There will be further discussion about the grammar and syntax of American Sign Language. Research will be conducted in the use of various manual communication systems with special populations, including aphasic, developmentally disabled, and others. Pre-Requisite: Manual Communications I or equivalent.

**IMPACT:** Presented below is an email reply to a request to Dr. Dorothy Durband, Director of the School of Family Studies and Human Services, for an email supporting the transfer of the course from FSHS to SECSA. The email request and reply were dated 1/7/15.

*Ken,*

*The purpose of this email is to let you know that I am in support of moving Manual Communications 1 and 2 to Special Education, Counseling, and Students Affairs. I sincerely hope that the courses will be beneficial to your students. Best wishes in 2015!*

*Dottie*

*Dorothy B. Durband, Ph.D.*
*Director*
*School of Family Studies and Human Services*
*College of Human Ecology*
*Kansas State University*
*302 Justin Hall*
*785.532.1472*

**RATIONALE:** Manual Communications II, offered through Global Campus, has been offered by Family Studies and Human Services (FSHS) in the College of Human Ecology. It is proposed to be transferred as a new course to Special Education, Counseling, and Student Affairs (SECSA) in the College of Education. Family Studies and Human Services decided it would no longer offer the course. Based on discussions with SECSA, it was agreed that the course would fit with Special Education.

**EFFECTIVE DATE:** Fall 2017

**EDCEP 839. Assessment of Academic Advising**. (3) Semesters vary based on need. The role of quality academic advising is key to student success, graduation, and completion as identified in the research and literature on the undergraduate student experience. However, the quality and the effectiveness of the academic advising experiences must be assessed. This course will focus on a review of the foundations of academic advising, the key terms and processes of assessment, and the strategies and processes used to assess academic advising.

**IMPACT:** None.

**RATIONALE:** This course is planned to be offered as a restricted elective in the MS in Academic Advising. The content provides a relevant option for the profession of academic advising.

**EFFECTIVE DATE:** Fall 2017

**Mathematics**

ADD: MATH 723 – Complex Functions. (3) II. Introduction to the theory of analytic functions, designed to prepare students for the qualifying exams. Holomorphic functions, contour integrals, residue theory, conformal mapping and other topics. 3 hours lecture each week. Pr.: MATH 721 is recommended. K-State 8: None.

RATIONALE: We are adding a course in complex functions at the 700-level to help prepare our graduate students for their exams.

IMPACT: No impact on other units.

EFFECTIVE DATE: Fall 2017

**Sociology, Anthropology, and Social Work**

ADD: SOCIO 838 – Sociology of Culture. (3) I. Intensive reading and discussion of classical and contemporary works relating to the study of culture, all those things that render the world around us comprehensible, communicable, and meaningful. The Focus on collective meaning, the process through which meaning is generated, and the roles collective meanings play in social life.

RATIONALE: Over the past two or three decades, the sociological interest in culture has increased dramatically. Tremendous advances have since been made in this field; culture is now a major area of specialization within sociology and attention to culture now plays a significant role in most sub-fields of sociology has started to impact the discipline as a whole. This course seeks to recognize this impact and make the sociological study of culture assessable to our graduate students.

IMPACT: This course should not affect other units.

EFFECTIVE DATE: Fall 2017

**Statistics**

ADD: STAT 750 – Studies in Probability and Statistics. (1-4) On demand. Studies of topics in probability, statistics, experimental design, stochastic processes, or other topics. May be repeated. Pr.: Instructor consent. K-State 8: None.

RATIONALE: This will be a general topics course to change each semester it is offered depending on faculty and student interests. This course will mirror the structure of Stat 950 except to be accessible to upper level undergraduate students and graduate students. As the statistics field

evolves and new faculty join the program, a general variable credit and graded topics course is desired for the purpose of educating students on emerging areas or to pilot ideas for new courses for the standard curriculum. The Stat 950 topics are generally out of reach for most MS students and all undergraduate students. Stat 799 is a credit/no credit course and often taken by students completing summer internships off campus as part of I-20 requirements. This course. Stat 750, will be graded and does not overlap with other existing courses.

IMPACT: No other units are affected. It may be that another program wants to allow this course as an elective for a major(s).

EFFECTIVE DATE: Fall 2017

**Biological & Agricultural Engineering**

**ADD:** BAE 675. Molecular Biosensor Technology and Applications. (3) Basic concepts of proteins, DNAs and cell technologies, which are needed for biosensor design, fabrication, application and future aspects. Emphasis on laboratory assays, engineering fabrication methods, and principles applied in biosensor development for animal and human disease diagnosis. Requisites: Pre-Req or Co-Req: BAE 445

Typically Offered: Fall

**Rationale**: This course has been offered as a special topics/problems course for the past two years. There were 14 students from 5 departments enrolled in this class fall semester 2016, making a total of 36 students enrolled for the past two years. This course will support the biological option of the BSE undergraduate program and other undergraduate students interested in Bioengineering. This course will cover different aspects of biotechnology and particularly focus on topics and concepts in biosensors fabrication and engineering principles associated with animal and human health problems.

**Impact:** Communicated with other departments (ECE, ChemE, and Chem) and no impacts have been identified

**Effective**: Fall 2017

**ADD**: BAE 875. Advanced Molecular Biosensor Technology and Applications. (3) Advanced research and study of bioengineering laboratory assays, engineering fabrication methods, and principles applied in biosensor development for animal and human disease diagnosis. Requisites: Pre-Req: BAE 445 Not available for students with credit for BAE 675.

Typically Offered: Fall

**Rationale**: This new course will support the graduate program in BAE in the biological engineering area.

**Impact:** Communicated with other departments (ECE, ChemE, and Chem) and no impact have been identified.

**Effective:** Fall 2017

**Industrial Engineering**

**ADD:**

IMSE 808. Systems Engineering Fundamentals. (3)Systems engineering is an interdisciplinary engineering management process used to develop an integrated, life-cycle balanced set of system solutions that satisfy customer needs. This course provides the fundamentals of a systems engineering approach to solving complex engineering systems problems. This course will address systems engineering processes and tools as they relate to the development and life cycle management of complex systems. Topics included in the course are analyzing customer's needs, requirements development, systems design, development and integration, developing technical performance measures, system verification and managing cost, schedule, and risk in engineering tasks. This course will also introduce reliability, availability and maintainability concepts and their applicability with complex systems. This course is applicable to all engineering disciplines involved with complex engineering systems. Requisites: 9 graduate credits from any engineering discipline, B.S. Engineering or Computer Science degree.

Typically Offered: on sufficient demand

**Rationale**: Systems engineering is an interdisciplinary approach and means to enable the realization of successful, complex systems. It focuses on defining customer needs and required functionality early in the development cycle, documenting requirements, then proceeding with design synthesis and system validation while considering the complete problem. As the complexity of systems increase, the systems engineering discipline provides methods and strategies for handling system complexity. The fundamental principles of systems engineering have an important role in the education of all engineers, regardless of their specialty, as well as professionals who work in the systems engineering field. The Industrial and Manufacturing Systems Engineering department believes that this course would enhance the course offerings in their Industrial Engineering, Operations Research and Engineering Management graduate programs.

**Impact:** No impact.

**Effective:** Fall 2017

**Mechanical Engineering**

ADD: NE 640. Nuclear Reactor Thermalhydraulics. Engineering principles underlying the design and operation of nuclear power plant components and systems. Fundamentals of nuclear energy generation, heat transport, and single- and two-phase flows.

Credits: 3

Note:

Requisites: NE 495, and Co-Req: ME 573

Typically Offered: Spring

UGE Course: No

K-State 8: No

**Rationale:** The typical curriculum of Nuclear Engineering education comprises of: a) Nuclear Reactor Systems and b) Radiation and Health Physics. Fundamentals of Nuclear Reactor Systems comprise of Reactor Thermalhydraulics and Reactor Physics. There is already a course in the catalog to cover Reactor Physics (NE-630) which is offered in Fall semester, but there is no course to cover Reactor Thermalhydraulics principles. In every Nuclear Engineering undergraduate program, nuclear option or minor program in United States, Nuclear Reactor Thermalhydraulics is either a compulsory course or technical elective. During the last three Spring semesters, this course has been offered as a special topics course, and has been able to attract undergraduate students.

**Impact:** There are at least two faculty members, ten graduate students and fifteen undergraduate students in Department of Mechanical and Nuclear Engineering, who are pursuing research related to thermal behavior of Nuclear Reactors. These research projects are sponsored by Department of Energy and Nuclear Regulatory Commission. Therefore, there is a justified need of enhancing educational program to improve the capabilities of the students involved in related research.

Most of the Nuclear Engineering jobs in United States or other countries are in the Nuclear Energy Systems. The students can greatly benefit from this course which is closely connected to design and operation of Nuclear Energy Systems. Department Head was contacted in Spring 2016, and he was enthusiastic about this course. It is not known if it impacts other unit.

Effective: Fall 2017

**FINAN 623 – Financial Modeling**
Credits: (3)
This course is designed to provide an in-depth knowledge of the use of Excel for use in the corporate finance and equity valuation environment. Topics include: • Use of Excel •Developing Models in Excel • Developing functional understanding of how to use Excel.

**Requisites**
Pre-requisites: FINAN 510 and FINAN 520 or FINAN 830

**When Offered**
Fall, Spring

**Rationale**
Our Finance Advisory Board members have indicated that our students are in need of application skills, especially in Excel, as they transition to the workplace. This course offers the student an in-depth functionality of Microsoft's Excel as well as a chance to apply the theoretical finance knowledge gained in prior classes. We have piloted this course for several semesters as a special topics course and the response to the class from both students and employers has been very positive.

**Effective Date**
Fall 2017

***Non-Expedited Courses Changes***

| | |
|---|---|
| **AGRON 655, Site Specific Agriculture**<br><br>**Credits (3)**<br><br>Introduction to spatial analysis and management of agricultural and environmental resources using | **AGRON 655, Site Specific Agriculture**<br><br>**Credits (3)**<br><br>Introduction to spatial analysis and management of agricultural and environmental resources using |

| | |
|---|---|
| Geographic Information Systems (GIS) technology. Emphasis on collecting, displaying, and analyzing spatial or georeferenced soil, crop, or other land surface data. Two hours lecture, two hours lab, and one hour by appointment per week.<br><br>**When Offered:** Spring<br><br>Recommended prerequisite: AGRON 220 and 305 and GEOG 508. | Geographic Information Systems (GIS) technology. Emphasis on collecting, displaying, and analyzing spatial or georeferenced soil, crop, or other land surface data. Two hours lecture, two hours lab, and one hour by appointment per week.<br><br>**When Offered:** Spring<br><br>Recommended prerequisite: AGRON ~~220 and 305~~ 375 and GEOG 508 and GEOG 605.<br><br>Required prerequisite: AGRON 202 |

**Rationale:** AGRON 202, Introduction to Precision Ag Software, is a new course that concerns the use of software products used in precision agriculture. Students should understand this software before taking AGRON 655. The recommended prerequisite list has been updated to reflect the current content of the course.

**Impact**: No concerns regarding impacts were expressed at the College of Agriculture Course and Curriculum Committee meeting on March 10, 2017. The Director of the NRES Secondary Major and the Director of the Geographic Information Science Certificate, Shawn Hutchinson, supported the proposed changes in an e-mail message of March 3, 2017. Joe Harner, Department Head of Biological and Agricultural Engineering and the Directors of the Biobased Products and Bioenergy Graduate Certificate, supported the proposed changes in e-mail messages of March 3 and 13, 2017.

**Effective Term**: Spring 2018

| | |
|---|---|
| **AGRON 746, Physical Properties of Soils**<br><br>**Credits (3)**<br><br>The properties of soils as affected by their physical environment, including water content, water potential, temperature, aeration, flocculation-dispersion, and soil compaction. Three hours of recitation a week.<br><br>**When Offered:** Spring<br><br>Recommended Prerequisite: AGRON 305. | **AGRON 746, ~~Physical Properties of Soils~~ Environmental Soil Physics**<br><br>**Credits (3)**<br><br>~~The properties of soils as affected by their physical environment, including water content, water potential, temperature, aeration, flocculation-dispersion, and soil compaction.~~ A conceptual and quantitative introductory study of vadose zone soil physical properties and processes in relation to the main components of the hydrologic cycle and the soil surface energy balance. Three hours of recitation a week.<br><br>**When Offered:** Spring<br><br>Recommended Prerequisite: AGRON 305 and PHYS 113. |

**Rationale:** The new title better reflects the content of the course, matches the title of the textbook, and is more parallel with the course title of AGRON 605, Soil and Environmental Chemistry. The new course description better describes the scope of the course. The course is now taught by a new instructor who has updated the course to include additional content in soil physics covered on the Soil Science Fundamentals Exam required for certification as a Professional Soil Scientist by the Soil Science Society of America.

**Impact**: No concerns regarding impacts were expressed at the College of Agriculture Course and Curriculum Committee meeting on March 10, 2017.The Director of the NRES Secondary Major (Shawn Hutchinson via e-mail on 3-3-17) and the departments of Biological and Agricultural Engineering and the Biobased Products and Bioenergy Graduate Certificate (Joe Harner via e-mail on 3-3-17), Chemical Engineering (Jim Edgar via e-mail on 3-3-17), Civil Engineering and Geoenvironmental Engineering Design (David Steward via e-mail on 3-3-17), and the Director of the Air Quality Graduate Certificate (Mo Hosni via e-mail on 3-3-17) were contacted, and all support the proposed changes.

**Effective Term**: Spring 2018

| | |
|---|---|
| ENTOM 930, **Topics in Environmental and Physiological Entomology**<br><br>**Credits:** 1-18<br><br>Selected topics for advanced study in insect behavior, biomechanics ecology, genetics, physiology, and related areas.<br><br>**Requisites:**<br>Prerequisite: Consent of instructor.<br><br>**Typically Offered**<br>Fall, Spring | ENTOM 930, **Topics in ~~Environmental and Physiological~~ Entomology**<br><br>**Credits:** ~~1-18~~ 1-9<br><br>Selected topics for advanced study in ~~insect behavior, biomechanics ecology, genetics, physiology, and related areas.~~ entomology. Repeatable<br>**Requisites:**<br>Prerequisite: Consent of instructor.<br><br>**Typically Offered**<br>Fall, Spring |

**Rationale:** Originally ENTOM 930 was intended for special topics in selected areas of environmental and physiological entomology. This course complemented ENTOM 932, which covered general and systematic entomology. We request broadening the scope of ENTOM 930 to cover all topics because we are requesting a concurrent change in the title and description of ENTOM 932 to make it exclusively a teaching experience course.

**Impact**: This course may be used by the Genetics program if/when topics related to genetics are offered. However, the broader course title we propose will continue to allow relevant topics to be offered to this program. Dr. Chris Toomajian has been made aware of this change, and approves (see attached file of our email correspondence in curriculog).

**Effective Term**: Spring 2018

| | |
|---|---|
| **ENTOM 932 - Topics in General and Systematic Entomology**<br><br>**Credits:** 1-18<br><br>Principles of taxonomy; advanced taxonomy; taxonomy of immature insects; acarology; biological literature; and teaching experience.<br><br>**Requisites:**<br>Prerequisite: ENTOM 710 and consent of instructor.<br><br>**Typically Offered**<br>Fall, Spring, on sufficient demand | **ENTOM 932 - ~~Topics in General and Systematic~~ Teaching Experience in Entomology**<br><br>**Credits:** ~~1-18~~1-3<br><br>~~Principles of taxonomy; advanced taxonomy; taxonomy of immature insects; acarology; biological literature; and teaching experience.~~ Teaching experiences for graduate students, including classroom instruction, development of curriculum materials, and other pedagogical methods.<br>**Requisites:**<br>Prerequisite: ~~ENTOM 710 and~~ Consent of instructor.<br><br>**Typically Offered**<br>Fall, Spring, on sufficient demand |

**Rationale:** Originally ENTOM 932 was intended for special topics in general and systematic entomology, including teaching experience. This course complemented ENTOM 930, which covered environmental and physiological entomology. However, we are submitting a proposal for ENTOM 930 concurrent with this one to broaden its scope to cover all special topics in entomology. We wish to change ENTOM 932 to cover only teaching experience. Because this course is only for entomology graduate students, there is no impact on any other department or college.

**Impact**: None

**Effective Term**: Spring 2018

| | |
|---|---|
| **PLPTH 780 - Gene Expression Analysis Workshop**<br><br>**Credits:** 1<br><br>One-week lecture and laboratory on RNA isolation and handling, cDNA preparation, microarray and sequence based gene expression analysis.<br><br>**Requisites:**<br>Recommended Prerequisite: One of the following courses: PLPTH 610, AGRON 610, BIOCH 521, BIOCH 522, BIOL 675, BIOL 676.<br><br>**Typically Offered**<br>Summer, Intersession | **PLPTH ~~780~~885 - ~~Gene Expression Analysis~~ Introduction to Genomic Technologies Workshop**<br><br>**Credits:** ~~1~~2<br>~~One-week lecture and laboratory on RNA isolation and handling, cDNA preparation, microarray and sequence based gene expression analysis.~~ Lecture and laboratory on the modern techniques to study genes and genomes.<br><br>Repeatable<br>**Requisites:**<br>Recommended Prerequisite: One of the following courses: PLPTH 610, AGRON 610, BIOCH 521, BIOCH 522, BIOL 675, BIOL 676, PLPTH 680, AGRON 680. |

| | |
|---|---|
| | **Typically Offered**<br>Summer~~, Intersession~~ |

**Rationale:** The enrollment in the course has been graduate students, so an increase in the course number from 780 to 885 reflects this student population. The increase in credit hours from 1 to 2 better reflects the mix of lecture and lab contact time. Also, a more general course description will allow the instructor to focus on rapidly changing technologies.

**Impact**: The Undergraduate Minor in Applied Genomics and Biotech was previously eliminated and is no longer offered.
These courses are currently listed as electives for the Graduate Certificate in Genetics and Genomics. The faculty involved with this Certificate Program will be proposing changes to the certificate requirements in Fall 2017.

**Effective Term**: Spring 2018

| | |
|---|---|
| **WOEM 620 - Human-Wildlife Conflicts**<br><br>**Credits:** 4<br><br>This course explores the theory and practice of assessing and controlling damage done by wild and feral vertebrate animals, especially mammals and birds. Content covers the philosophical, biological, and practical basis for conducting vertebrate pest control. It includes basic information on use of traps, toxicants, repellents, exclusion and other wildlife control methods. Emphasis is on protecting agricultural crops and livestock, forest resources, and property.<br><br>**Typically Offered**<br>Spring | **WOEM 620 - Human-Wildlife Conflicts**<br><br>**Credits:** 4<br><br>This course explores the theory and practice of assessing and controlling damage done by wild and feral vertebrate animals, especially mammals and birds. Content covers the philosophical, biological, and practical basis for conducting vertebrate pest control. It includes basic information on use of traps, toxicants, repellents, exclusion and other wildlife control methods. Emphasis is on protecting agricultural crops and livestock, forest resources, and property.<br><u>Prerequisite: BIOL 433</u><br><br>**Typically Offered**<br>Spring |

**Rationale:** It will provide prerequisite knowledge about wildlife conservation necessary for the class. Dr. Davis has contacted Dave Rintoul of the Biology Department regarding this prerequisite. There is no other impact outside this department and will not affect current enrollment in BIOL 433.

**Impact**: No report for undergraduate or graduate catalog

**Effective Term**: Fall 2018

***Non-Expedited Course Drop***

**ENTOM 866 - Insect Morphology,** Credits: **3,** Morphology of insects with emphasis on the evolution and functional complexes of structures. Anatomy and structure of internal systems using microdissections and histological techniques.

Note:
**Two one hours lecture, one three hour lab per week.**

Requisites:
**Prerequisite: ENTOM 312 and ENTOM 313 or ENTOM 710.**

Typically Offered
**Spring, even years**

**Rationale:** ENTOM 866 has had no enrollment for several years and it is unlikely that our graduate students or others will enroll in the future. In addition, some of the subject matter is covered in currently-offered courses, including ENTOM 710 and ENTOM 875.

**Impact**: No impact likely. There has been no enrollment in ENTOM 866 for many years. Furthermore, the rationale for our own graduate students is that they can obtain some of the course content by enrolling in other courses that will continue to be offered. This option is also available to students in other units and colleges.

**Effective Term**: Spring 2018

**PLPTH 785 - Real-Time PCR Workshop**

**Credits:** 1

Four half-day lecture and laboratory sessions on real-time PCR primer/probe design, experimentation, and data analysis.

**Requisites:**
Prerequisite: One of the following courses: PLPTH 610, AGRON 610, BIOCH 521, BIOCH 522, BIOL 675, BIOL 676.

**Typically Offered**
Fall, Summer

**Rationale:** Content from PLPTH 780 Gene Expression Analysis Workshop and PLPTH 785 Real-Time PCR Workshop will be incorporated into the PLPTH 885 Introduction to Genomic Technologies Workshop course.

The Undergraduate Minor in Applied Genomics and Biotech was previously eliminated and is no longer offered.
These courses are currently listed as electives for the Graduate Certificate in Genetics and Genomics. The faculty involved with this Certificate Program will be proposing changes to the certificate requirements in Fall 2017.

**Impact**: The Undergraduate Minor in Applied Genomics and Biotech was previously eliminated and is no longer offered.
These courses are currently listed as electives for the Graduate Certificate in Genetics and Genomics. The faculty involved with this Certificate Program will be proposing changes to the certificate requirements in Fall 2017.

**Effective Term**: Spring 2018

***Non-Expedited Curriculum Changes***

Master of Public Heath

| From: | To: |
|---|---|
| **Food Safety and Biosecurity**<br><br>**Required courses (4 credit hours):**<br><br>• FDSCI 730 - A Multidisciplinary Overview of Food Safety and Security **Credits:** 2<br>• FDSCI 731 - Food Protection and Defense– Essential Concepts **Credits:** 2<br><br>**Minimum 6 credit hours from the following:**<br><br>• DMP 855 - Disease Detection, Surveillance and Risk Assessment **Credits:** 3<br>• FDSCI 600 - Food Microbiology **Credits:** 2<br>• FDSCI 690 - Principles of HACCP and HARPC **Credits:** 3<br>• FDSCI 750 - Food Toxicants **Credits:** 2<br>• FDSCI 753 - Risk Assessment for Food, Ag, & Vet Med **Credits:** 3<br>• FDSCI 791 - Advanced Application of HACCP Principles **Credits:** 3<br><br>**Minimum 2 credit hours from the following:**<br><br>• DMP 816 - Trade and Agricultural Health **Credits:** 2<br>• DMP 844 - Global Health Issues **Credits:** 3<br><br>**Minimum 3 credit hours from the following:**<br><br>• DMP 815 - Multidisciplinary Thought and Presentation **Credits:** 3<br>• MC 750 - Strategic Health Communication **Credits:** 3<br>• MC 760 - Communication and Risk **Credits:** 3<br><br>**Select remaining courses needed (0-7 credit hours) from any of the courses listed above or from the following:**<br><br>• DMP 710 - Introduction to One Health **Credits:** 2<br>• DMP 806 - Environmental Toxicology **Credits:** 2 | **Food Safety and Biosecurity**<br><br>**Required courses (4 credit hours):**<br><br>• FDSCI 730 - A Multidisciplinary Overview of Food Safety and Security **Credits:** 2<br>• FDSCI 731 - Food Protection and Defense– Essential Concepts **Credits:** 2<br>•<br>**Minimum 6 credit hours from the following:**<br><br>• DMP 855 - Disease Detection, Surveillance and Risk Assessment **Credits:** 3<br>• FDSCI 600 - Food Microbiology **Credits:** 2<br>• FDSCI 690 - Principles of HACCP and HARPC **Credits:** 3<br>• FDSCI 750 - Food Toxicants **Credits:** 2<br>• FDSCI 753 - Risk Assessment for Food, Ag, & Vet Med **Credits:** 3<br>• FDSCI 791 - Advanced Application of HACCP Principles **Credits:** 3<br><br>**Minimum 2 credit hours from the following:**<br><br>• DMP 816 - Trade and Agricultural Health **Credits:** 2<br>• DMP 844 - Global Health Issues **Credits:** 3<br><br>**Minimum 3 credit hours from the following:**<br><br>• AAI 801 – Interdisciplinary Process **Credits:** 3<br>• DMP 815 - Multidisciplinary Thought and Presentation **Credits:** 3<br>• MC 750 - Strategic Health Communication **Credits:** 3<br>• MC 760 - Communication and Risk **Credits:** 3<br><br>**Select remaining courses needed (0-7 credit hours) from any of the courses listed above or from the following:**<br><br>• DMP 710 - Introduction to One Health **Credits:** 2<br>• DMP 806 - Environmental Toxicology **Credits:** 2 |

| | |
|---|---|
| • DMP 880 - Problems in Pathobiology (MS) **Credits:** 1-6<br>• DMP 888 - Globalization, Cooperation, & the Food Trade **Credits:** 1<br>• FDSCI 601 - Food Microbiology Lab **Credits:** 2<br>• FDSCI 695 - Quality Assurance of Food Products **Credits:** 3<br>• FDSCI 751 - Food Laws and the Regulatory Process **Credits:** 2<br>• FDSCI 820 - Advanced Food Microbiology & Biotechnology **Credits:** 2<br>• STAT 705 - Regression and Analysis of Variance **Credits:** 3 | • DMP 880 - Problems in Pathobiology (MS) **Credits:** 1-6<br>• DMP 888 - Globalization, Cooperation, & the Food Trade **Credits:** 1<br>• FDSCI 601 - Food Microbiology Lab **Credits:** 2<br>• FDSCI 695 - Quality Assurance of Food Products **Credits:** 3<br>• FDSCI 751 - Food Laws and the Regulatory Process **Credits:** 2<br>• FDSCI 820 - Advanced Food Microbiology & Biotechnology **Credits:** 2<br>STAT 705 - Regression and Analysis of Variance **Credits:** 3 |
| **Infectious Diseases and Zoonoses**<br><br>**6-7 credit hours from the following:**<br><br>• ASI 540 - Principles of Animal Disease Control **Credits:** 3<br>• BIOL 530 - Pathogenic Microbiology **Credits:** 3<br>• BIOL 545 - Human Parasitology **Credits:** 3<br>• BIOL 546 - Human Parasitology Laboratory **Credits:** 1<br>• BIOL 604 - Biology of the Fungi **Credits:** 3<br>• BIOL 675 - Genetics of Microorganisms **Credits:** 3<br>• BIOL 687 - Microbial Ecology **Credits:** 3<br>• BIOL 730 - General Virology **Credits:** 3<br>• DMP 712 - Veterinary Bacteriology & Mycology - Lecture **Credits:** 3<br>• DMP 718 - Veterinary Parasitology **Credits:** 4<br>• DMP 722 - Veterinary Virology **Credits:** 3<br>• DMP 860 - Pathogenic Mechanisms **Credits:** 3<br><br>**3-4 credit hours from the following:**<br><br>• BIOL 670 - Immunology **Credits:** 4<br>• DMP 705 - Principles of Veterinary Immunology **Credits:** 2<br>• DMP 850 - Immunology of Domestic Animals **Credits:** 3<br><br>**3-6 credit hours from the following:** | **Infectious Diseases and Zoonoses**<br><br>**6-7 credit hours from the following:**<br><br>• ASI 540 - Principles of Animal Disease Control **Credits:** 3<br>• BIOL 530 - Pathogenic Microbiology **Credits:** 3<br>• BIOL 545 - Human Parasitology **Credits:** 3<br>• BIOL 546 - Human Parasitology Laboratory **Credits:** 1<br>• BIOL 604 - Biology of the Fungi **Credits:** 3<br>• BIOL 675 - Genetics of Microorganisms **Credits:** 3<br>• BIOL 687 - Microbial Ecology **Credits:** 3<br>• BIOL 730 - General Virology **Credits:** 3<br>• DMP 712 - Veterinary Bacteriology & Mycology - Lecture **Credits:** 3<br>• DMP 718 - Veterinary Parasitology **Credits:** 4<br>• DMP 722 - Veterinary Virology **Credits:** 3<br>• DMP 860 - Pathogenic Mechanisms **Credits:** 3<br><br>**3-4 credit hours from the following:**<br><br>• BIOL 670 - Immunology **Credits:** 4<br>• DMP 705 - Principles of Veterinary Immunology **Credits:** 2<br>• DMP 850 - Immunology of Domestic Animals **Credits:** 3<br>• DMP 880 – Problems in Pathobiology **Credits:** 1-6<br><br>**3-6 credit hours from the following:** |

| | |
|---|---|
| • BIOL 529 - Fundamentals of Ecology **Credits:** 3<br>• DMP 710 - Introduction to One Health **Credits:** 2<br>• DMP 770 - Emerging Diseases **Credits:** 3<br>• DMP 801 - Toxicology **Credits:** 2<br>• DMP 806 - Environmental Toxicology **Credits:** 2<br>• DMP 816 - Trade and Agricultural Health **Credits:** 2<br>• DMP 844 - Global Health Issues **Credits:** 3<br>• DMP 888 - Globalization, Cooperation, & the Food Trade **Credits:** 1<br>• ENTOM 849 - Biology of Disease Vectors of Human and Veterinary Importance **Credits:** 3<br>• FDSCI 690 - Principles of HACCP and HARPC **Credits:** 3<br>• FDSCI 730 - A Multidisciplinary Overview of Food Safety and Security **Credits:** 2<br>• FDSCI 731 - Food Protection and Defense– Essential Concepts **Credits:** 2<br>• GEOG 508 - Geographic Information Systems I **Credits:** 4<br>• GEOG 608 - Geographic Information Systems II **Credits:** 3 | • BIOL 529 - Fundamentals of Ecology **Credits:** 3<br>• DMP 710 - Introduction to One Health **Credits:** 2<br>• DMP 770 - Emerging Diseases **Credits:** 3<br>• DMP 801 - Toxicology **Credits:** 2<br>• DMP 806 - Environmental Toxicology **Credits:** 2<br>• DMP 816 - Trade and Agricultural Health **Credits:** 2<br>• DMP 844 - Global Health Issues **Credits:** 3<br>• DMP 888 - Globalization, Cooperation, & the Food Trade **Credits:** 1<br>• ENTOM 849 - Biology of Disease Vectors of Human and Veterinary Importance **Credits:** 3<br>• FDSCI 690 - Principles of HACCP and HARPC **Credits:** 3<br>• FDSCI 730 - A Multidisciplinary Overview of Food Safety and Security **Credits:** 2<br>• FDSCI 731 - Food Protection and Defense– Essential Concepts **Credits:** 2<br>• GEOG 508 - Geographic Information Systems I **Credits:** 4<br>• GEOG 608 - Geographic Information Systems II **Credits:** 3 |
| **3-6 credit hours from the following:**<br><br>• DMP 753 - Veterinary Public Health **Credits:** 2<br>• DMP 830 - Quantitative Analysis in Food Production Veterinary Medicine **Credits:** 3<br>• DMP 854 - Intermediate Epidemiology **Credits:** 3<br>• DMP 855 - Disease Detection, Surveillance and Risk Assessment **Credits:** 3<br>• DMP 871 - Molecular Diagnostics of Infectious Diseases **Credits:** 3<br>• DMP 954 - Advanced Epidemiology **Credits:** 4<br>• STAT 705 - Regression and Analysis of Variance **Credits:** 3<br>• STAT 716 - Nonparametric Statistics **Credits:** 3<br>• STAT 717 - Categorical Data Analysis **Credits:** 3<br>• STAT 720 - Design of Experiments **Credits:** 3<br>• STAT 730 - Multivariate Statistical Methods **Credits:** 3 | **3-6 credit hours from the following:**<br><br>• DMP 753 - Veterinary Public Health **Credits:** 2<br>• DMP 830 - Quantitative Analysis in Food Production Veterinary Medicine **Credits:** 3<br>• DMP 854 - Intermediate Epidemiology **Credits:** 3<br>• DMP 855 - Disease Detection, Surveillance and Risk Assessment **Credits:** 3<br>• DMP 871 - Molecular Diagnostics of Infectious Diseases **Credits:** 3<br>• DMP 954 - Advanced Epidemiology **Credits:** 4<br>• STAT 705 - Regression and Analysis of Variance **Credits:** 3<br>• STAT 716 - Nonparametric Statistics **Credits:** 3<br>• STAT 717 - Categorical Data Analysis **Credits:** 3<br>• STAT 720 - Design of Experiments **Credits:** 3<br>• STAT 730 - Multivariate Statistical Methods **Credits:** 3 |
| **3 credit hours from the following:** | **3 credit hours from the following:**<br><br>• AAI 801 – Interdisciplinary Process **Credits:** 3 |

| | |
|---|---|
| • DMP 815 - Multidisciplinary Thought and Presentation **Credits:** 3<br>• MC 750 - Strategic Health Communication **Credits:** 3<br>• MC 760 - Communication and Risk **Credits:** 3<br><br>**Select remaining courses needed (0-4 hours) from any of the courses listed above.** | • DMP 815 - Multidisciplinary Thought and Presentation **Credits:** 3<br>• MC 750 - Strategic Health Communication **Credits:** 3<br>• MC 760 - Communication and Risk **Credits:** 3<br><br>**Select remaining courses needed (0-4 hours) from any of the courses listed above.** |
| **Public Health Nutrition**<br><br>**Required courses (10 credit hours):**<br><br>• FNDH 600 - Public Health Nutrition **Credits:** 3<br>• FNDH 820 - Functional Foods for Chronic Disease Prevention **Credits:** 3<br>• FNDH 844 - Nutritional Epidemiology **Credits:** 3<br>• FNDH 880 - Graduate Seminar in Human Nutrition **Credits:** 1<br><br>**6-11 credit hours from the following:**<br><br>• FNDH 620 - Nutrient Metabolism **Credits:** 3<br>• FNDH 631 - Clinical Nutrition I **Credits:** 3<br>• FNDH 632 - Clinical Nutrition II **Credits:** 3<br>• FNDH 635 - Nutrition and Exercise **Credits:** 3<br>• FNDH 700 - Global Health and Nutrition **Credits:** 3<br>• FNDH 718 - Physical Health and Aging **Credits:** 3<br>• FNDH 726 - Nutrition and Wellness **Credits:** 3<br>• FNDH 735 - Advanced Energy Balance **Credits:** 3<br>• FNDH 780 - Problems in Human Nutrition **Credits:** 1-18<br>• FNDH 782 - Topics in Human Nutrition **Credits:** 1-3<br>• FNDH 800 - Nutrition Education and Communication **Credits:** 3<br>• FNDH 810 - Advanced Macronutrient Metabolism **Credits:** 5<br>• FNDH 812 - Advanced Micronutrient Metabolism **Credits:** 3<br>• FNDH 841 - Consumer Research - Fundamentals **Credits:** 1<br>• FNDH 862 - Maternal and Child Nutrition **Credits:** 3 | **Public Health Nutrition**<br><br>**Required courses (10 credit hours):**<br><br>• FNDH 600 - Public Health Nutrition **Credits:** 3<br>• FNDH 820 - Functional Foods for Chronic Disease Prevention **Credits:** 3<br>• FNDH 844 - Nutritional Epidemiology **Credits:** 3<br>• FNDH 880 - Graduate Seminar in Human Nutrition **Credits:** 1<br><br>**6-11 credit hours from the following:**<br><br>• FNDH 620 - Nutrient Metabolism **Credits:** 3<br>• FNDH 631 - Clinical Nutrition I **Credits:** 3<br>• FNDH 632 - Clinical Nutrition II **Credits:** 3<br>• FNDH 635 - Nutrition and Exercise **Credits:** 3<br>• FNDH 700 - Global Health and Nutrition **Credits:** 3<br>• FNDH 718 - Physical Health and Aging **Credits:** 3<br>• FNDH 726 - Nutrition and Wellness **Credits:** 3<br>• FNDH 735 - Advanced Energy Balance **Credits:** 3<br>• FNDH 780 - Problems in Human Nutrition **Credits:** 1-18<br>• FNDH 782 - Topics in Human Nutrition **Credits:** 1-3<br>• FNDH 800 - Nutrition Education and Communication **Credits:** 3<br>• FNDH 810 - Advanced Macronutrient Metabolism **Credits:** 5<br>• FNDH 812 - Advanced Micronutrient Metabolism **Credits:** 3<br>• FNDH 841 - Consumer Research - Fundamentals **Credits:** 1<br>• FNDH 862 - Maternal and Child Nutrition **Credits:** 3 |

| | |
|---|---|
| • FNDH 891 - Environmental Scanning and Analysis of Current Issues in Dietetics **Credits:** 3<br><br>**3-9 credit hours from the following:**<br><br>• FSHS 714 - Program Design, Evaluation, and Implementation **Credits:** 3<br>• KIN 610 - Program Planning and Evaluation **Credits:** 3<br>• KIN 805 - Physical Activity and Human Behavior **Credits:** 3<br>• MC 750 - Strategic Health Communication **Credits:** 3<br>• MC 760 - Communication and Risk **Credits:** 3<br>• PSYCH 518 - Introduction to Health Psychology **Credits:** 3<br>• SOCIO 541 - Wealth, Power, and Privilege **Credits:** 3<br>• SOCIO 570 - Race and Ethnic Relations in the USA **Credits:** 3<br>• STAT 705 - Regression and Analysis of Variance **Credits:** 3<br>• STAT 710 - Sample Survey Methods **Credits:** 3<br>• STAT 713 - Applied Linear Statistical Models **Credits:** 3<br>• STAT 716 - Nonparametric Statistics **Credits:** 3<br>• STAT 717 - Categorical Data Analysis **Credits:** 3<br>• STAT 720 - Design of Experiments **Credits:** 3<br>• STAT 725 - Introduction to the SAS Computing **Credits:** 1<br>• STAT 730 - Multivariate Statistical Methods **Credits:** 3 | • FNDH 891 - Environmental Scanning and Analysis of Current Issues in Dietetics **Credits:** 3<br><br>**3-9 credit hours from the following:**<br><br>• AAI 801 – Interdisciplinary Process **Credits:** 3<br>• FSHS 714 - Program Design, Evaluation, and Implementation **Credits:** 3<br>• KIN 610 - Program Planning and Evaluation **Credits:** 3<br>• KIN 805 - Physical Activity and Human Behavior **Credits:** 3<br>• MC 750 - Strategic Health Communication **Credits:** 3<br>• MC 760 - Communication and Risk **Credits:** 3<br>• PSYCH 518 - Introduction to Health Psychology **Credits:** 3<br>• SOCIO 541 - Wealth, Power, and Privilege **Credits:** 3<br>• SOCIO 570 - Race and Ethnic Relations in the USA **Credits:** 3<br>• STAT 705 - Regression and Analysis of Variance **Credits:** 3<br>• STAT 710 - Sample Survey Methods **Credits:** 3<br>• STAT 713 - Applied Linear Statistical Models **Credits:** 3<br>• STAT 716 - Nonparametric Statistics **Credits:** 3<br>• STAT 717 - Categorical Data Analysis **Credits:** 3<br>• STAT 720 - Design of Experiments **Credits:** 3<br>• STAT 725 - Introduction to the SAS Computing **Credits:** 1<br>• STAT 730 - Multivariate Statistical Methods **Credits:** 3 |
| **Public Health Physical Activity**<br><br>**Required courses (9 credit hours):**<br><br>• KIN 610 - Program Planning and Evaluation **Credits:** (3)<br>• KIN 612 - Policy, Built Environment and Physical Activity **Credits:** (3)<br>• KIN 805 - Physical Activity and Human Behavior **Credits:** (3)<br><br>**7-10 credit hours from the following:** | **Public Health Physical Activity**<br><br>**Required courses (9 credit hours):**<br><br>• KIN 610 - Program Planning and Evaluation **Credits:** (3)<br>• KIN 612 - Policy, Built Environment and Physical Activity **Credits:** (3)<br>• KIN 805 - Physical Activity and Human Behavior **Credits:** (3)<br><br>**7-10 credit hours from the following:** |

| | |
|---|---|
| • KIN 600 - Interpersonal Aspects of Physical Activity **Credits:** (3)<br>• KIN 601 - Cardiorespiratory Exercise Physiology **Credits:** (3)<br>• KIN 602 - Social Structural Determinants of Physical Activity **Credits:** (3)<br>• KIN 606 - Topics in the Behavioral Basis of Kinesiology **Credits:** (1-3)<br>• KIN 614 - Physical Activity Behavior Settings: Youth Sport to Senior Centers **Credits:** (3)<br>• KIN 625 - Exercise Testing and Prescription **Credits:** (3)<br>• KIN 635 - Nutrition and Exercise **Credits:** (3)<br>• KIN 655 - Individual Physical Activity Promotion **Credits:** (3)<br>• KIN 797 - Topics in Public Health Physical Activity Behavior **Credits:** (3)<br>• KIN 815 - Research Methods in Kinesiology **Credits:** (3)<br>• KIN 851 - Topics in the Physiological Basis of Kinesiology **Credits:** (1-3)<br>• KIN 852 - Topics in the Behavioral Basis of Kinesiology **Credits:** (1-3)<br>• KIN 896 – Independent Study (instructor permission required **Credits (1-3)**<br>• FNDH 600 – Public Health Nutrition **Credits: (3)**<br>• FNDH 844 – Nutritional Epidemiology **Credits: (3)**<br>• MC 750 - Strategic Health Communication **Credits:** 3<br>• SOC 541 – Wealth, Power & Privilege **Credits: (3)**<br>• SOC 545 – Sociology of Women **Credits: (3)**<br>• SOC 570 – Race and Ethnic Relations in the United States **Credits: (3)**<br>• STAT 705 - Regression and Analysis of Variance **Credits:** 3<br>• STAT 710 - Sample Survey Methods **Credits:** 3<br>• STAT 716 - Nonparametric Statistics **Credits:** 3<br>• STAT 717 - Categorical Data Analysis **Credits:** 3<br>• STAT 720 - Design of Experiments **Credits:** 3<br>• STAT 725 - Introduction to the SAS Computing **Credits:** 1<br>• STAT 730 - Multivariate Statistical Methods **Credits:** 3 | • **AAI 801 – Interdisciplinary Process Credits: 3**<br>• KIN 600 - Interpersonal Aspects of Physical Activity **Credits:** (3)<br>• KIN 601 - Cardiorespiratory Exercise Physiology **Credits:** (3)<br>• KIN 602 - Social Structural Determinants of Physical Activity **Credits:** (3)<br>• KIN 606 - Topics in the Behavioral Basis of Kinesiology **Credits:** (1-3)<br>• KIN 614 - Physical Activity Behavior Settings: Youth Sport to Senior Centers **Credits:** (3)<br>• KIN 625 - Exercise Testing and Prescription **Credits:** (3)<br>• KIN 635 - Nutrition and Exercise **Credits:** (3)<br>• KIN 655 - Individual Physical Activity Promotion **Credits:** (3)<br>• KIN 797 - Topics in Public Health Physical Activity Behavior **Credits:** (3)<br>• KIN 815 - Research Methods in Kinesiology **Credits:** (3)<br>• KIN 851 - Topics in the Physiological Basis of Kinesiology **Credits:** (1-3)<br>• KIN 852 - Topics in the Behavioral Basis of Kinesiology **Credits:** (1-3)<br>• KIN 896 – Independent Study (instructor permission required **Credits (1-3)**<br>• FNDH 600 – Public Health Nutrition **Credits: (3)**<br>• FNDH 844 – Nutritional Epidemiology **Credits: (3)**<br>• MC 750 - Strategic Health Communication **Credits:** 3<br>• SOC 541 – Wealth, Power & Privilege **Credits: (3)**<br>• SOC 545 – Sociology of Women **Credits: (3)**<br>• SOC 570 – Race and Ethnic Relations in the United States **Credits: (3)**<br>• STAT 705 - Regression and Analysis of Variance **Credits:** 3<br>• STAT 710 - Sample Survey Methods **Credits:** 3<br>• STAT 716 - Nonparametric Statistics **Credits:** 3<br>• STAT 717 - Categorical Data Analysis **Credits:** 3<br>• STAT 720 - Design of Experiments **Credits:** 3<br>• STAT 725 - Introduction to the SAS Computing **Credits:** 1<br>• STAT 730 - Multivariate Statistical Methods **Credits:** 3 |

**Rationale:** Review of curriculum for all emphasis areas indicates a need for an additional course that fulfills the communication competency. Dr. Kastner approved the use of his course (AAI 801 –

Interdisciplinary Process) that originates from K-State Olathe and is available online for students on other campuses (AAI = Applied and Interdisciplinary Studies).

Additionally, a problems course (DMP 880 – Problems in Pathobiology) for the Infectious Diseases/Zoonoses emphasis area needs to be added to the list of classes.

**Impact:** Dr. Kastner approved the use of his course. Interdisciplinary faculty approved the changes.

**Effective Term:** Spring 2018

Geographic Information Science Graduate Certificate

| FROM: | TO: |
|---|---|
| The course requirements for the Graduate Certificate in GIScience are shown below. -A minimum of 15 graduate credit hours is required to earn the certificate. A maximum of two geospatial core courses may be waived and replaced with approved electives in cases where students have completed prior coursework for undergraduate credit. A minimum of 12 hours at the 600-level or higher is required. Students must earn a minimum GPA of 3.33 in the geospatial core to earn the certificate.<br><br>Prerequisites:<br><br>Competence in cartography, thematic mapping, ~~of~~ geodesy, or geomatics (e.g., GEOG 302)<br>Competence in basic statistics (e.g., STAT 320, STAT 330, STAT 350)<br>Competence in object-oriented computer programming (e.g., Python)<br><br>Geospatial Core (10 credit hours)<br><br>GEOG 508 Geographic Information Systems I (4)<br>GEOG 605 Remote Sensing of the Environment (3)<br>GEOG 608 Geographic Information Systems II (3) | The course requirements for the Graduate Certificate in GIScience are shown below. -A minimum of 15 graduate credit hours is required to earn the certificate. A maximum of two geospatial core courses may be waived and replaced with approved electives in cases where students have completed prior coursework for undergraduate credit. A minimum of 12 hours at the 600-level or higher is required. Students must earn a minimum GPA of 3.33 in the geospatial core to earn the certificate.<br><br>Prerequisites:<br><br>Competence in cartography, thematic mapping, geodesy, or geomatics (e.g., GEOG 302)<br>Competence in basic statistics (e.g., STAT 320, STAT 330, STAT 350)<br>Competence in object-oriented computer programming (e.g., Python)<br><br>Geospatial Core (10 credit hours)<br><br>GEOG 508 Geographic Information Systems I (4)<br>GEOG 605 Remote Sensing of the Environment (3)<br>GEOG 608 Geographic Information Systems II (3) |
| Elective courses — Select two (minimum of 6 credit hours):<br><br>AGRON 655 Site-Specific Agriculture (3)<br>CE 585 Civil Engineering Project (1-3)<br>CE 752 Advanced Hydrology (3)<br>CE 786 Land Development for Civil Engineers and Planners (3)<br>CIS 501 Software Architecture and Design (3)<br>CIS 560 Database System Concepts (3)<br>CIS 635 Introduction to Computer-based Knowledge Systems (3) | Elective courses — Select two (minimum of 6 credit hours):<br><br>AGRON 655 Site-Specific Agriculture (3)<br>BAE 669 Watershed Modeling (3)<br>BAE 869 Advanced Watershed Modeling (3)<br>BIOL 822 Landscape Ecology (4)<br>CE 585 Civil Engineering Project (1-3)<br>CE 752 Advanced Hydrology (3)<br>CE 786 Land Development for Civil Engineers and Planners (3)<br>CE 857 Advanced Civil Engineering Design using GIS (3) |

| | |
|---|---|
| CIS 636 Introduction to Computer Graphics (3) GEOG 602 Computer Mapping and Geographic Visualization (3)<br>GEOG 610 Geography Internship (1-3)<br>GEOG 700 Quantitative Analysis in Geography (3)<br>GEOG 705 Thematic Remote Sensing (3)<br>GEOG 706 Biophysical Remote Sensing (3)<br>GEOG 709 Geography Field Research Techniques (23)<br>GEOG 711 Topics in Remote Sensing (3)<br>GEOG 712 Internet GIS and Distributed GIServices (3)<br>GEOG 728 Topics in Programming for Geographic Analysis (3)<br>GEOG 795 Topics in Geographic Information Science (1-3)<br>GEOG 808 Geocomputation (3)<br>GEOG 880 Spatial Data Analysis and Modeling (3)<br>GEOG 890 Advanced Spatial Analysis Techniques (3)<br>GEOG 895 Topics in Spatial Analysis (1-3)<br>LAR 704 Environmental Landscape Planning and Design (5)<br>PLAN 801 Planning Methods 1 (3)<br>PLAN 836 Community Plan Preparation (3)<br>STAT 703 Statistical Methods for Natural Scientists (3)<br>STAT 705 Regression and Analysis of Variance (3) | CIS 501 Software Architecture and Design (3)<br>CIS 560 Database System Concepts (3)<br>CIS 635 Introduction to Computer-based Knowledge Systems (3)<br>CIS 636 Introduction to Computer Graphics (3)<br>CIS 736 Computer Graphics (3)<br>CIS 761 Database Management Systems (3)<br>COT 674 Processing Techniques for Low-Altitude Remotely Sensed Data (3)<br>COT 676 Low-Altitude Remote-Sensing Product/Project Development (3)<br>DMP 725 GIS Applications in Animal and Public Health (2)<br>DMP 726 GIS Applications in Animal and Public Health Lab (1)<br>GEOG 602 Computer Mapping and Geographic Visualization (3)<br>GEOG 610 Geography Internship (1-3)<br>GEOG 700 Quantitative Analysis in Geography (3)<br>GEOG 705 Thematic Remote Sensing (3)<br>GEOG 706 Biophysical Remote Sensing (3)<br>GEOG 707 Remote Sensing of Water (3)<br>GEOG 709 Geography Field Research Techniques (2-3)<br>GEOG 711 Topics in Remote Sensing (3)<br>GEOG 712 Internet GIS and Distributed GIServices (3)<br>GEOG 728 Topics in Programming for Geographic Analysis (3)<br>GEOG 790 Seminar in Geography (3)<br>GEOG 795 Topics in Geographic Information Science (1-3)<br>GEOG 808 Geocomputation (3)<br>GEOG 880 Spatial Data Analysis and Modeling (3)<br>GEOG 890 Advanced Spatial Analysis Techniques (3)<br>GEOG 895 Topics in Spatial Analysis (1-3)<br>HORT 820 Quantitative Agricultural Remote Sensing (3)<br><br>LAR 704 Environmental Landscape Planning and Design (~~5~~)(3)<br><br>LAR 580 Planning & Design Intro to GIS (2)<br>MATH 615 Introduction to Digital Image Processing (3)<br>PLAN 801 Planning Methods 1 (3)<br>PLAN 836 Community Plan Preparation (3)<br>STAT 703 Statistical Methods for Natural Scientists (3)<br>STAT 705 Regression and Analysis of Variance (3)<br>STAT 726 Introduction to R Computing I<br>STAT 903 Statistical Methods for Spatial Data (3) |

RATIONALE: This is a routine update of the Geographic Information Science Graduate Certificate to reflect recent changes in course names/numbers and cross-listings, as well as to expand the list

of pre-approved elective courses. Potentially impacted departments were contacted for comment on February 24, 2017.

IMPACT: BAE, BIOL, CE, CIS, COT, DMP, GEOG, HORT, LAR, MATH, STAT.

EFFECTIVE DATE: Fall 2017

| | |
|---|---|
| **MATHEMATICS -**<br>**APPLIED MATHEMATICS GRADUATE CERTIFICATE** | |
| ***FROM:***<br>*Core Courses (6 credit hours)*<br>**MATH 715** Applied Mathematics I \| 3 credits<br>**MATH 716** Applied Mathematics II \| 3 credits<br><br>*Elective Courses (minimum of 6 credit hours)*<br>**MATH 615** Introduction to Digital Image Processing \| 3 credits<br>**MATH 635** Dynamics, Chaos, and Fractals \| 3 credits<br>**MATH 789** Combinatorial Analysis \| 3 credits<br><br>**IMSE 881** Linear Programming \| 3 credits<br>**IMSE 882** Network Flows and Graph Theory \| 3 credits<br>**IMSE 884** Integer Programming and Combinatorial Optimization \| 3 credits<br>**IMSE 982** Nonlinear Programming \| 3 credits<br><br>**ECE 840** Computer Engineering Methods for Analysis, Simulation, and Design \| 3 credits<br>**ECE 861** Noise Theory \| 3 credits<br>**ECE 963** Signal Detection Theory \| 3 credits<br>**ECE 965** Information Theory \| 3 credits<br><br>**CE 803** Numerical and Analytic Techniques for Engineers \| 3 credits<br><br>**STAT 704** Analysis of Variance \| 2 credits<br>**STAT 705** Regression and Correlation Analysis \| 2 credits<br>**STAT 710** Sample Survey Methods \| 2 credits<br>**STAT 713** Applied Linear Statistical Models \| 4 credits<br>**STAT 716** Nonparametric Statistics \| 2 credits<br>**STAT 717** Categorical Data Analysis \| 3 credits<br>**STAT 720** Design of Experiments \| 3 credits .<br>**STAT 722** Experimental Design for Product Development and Quality Improvement \| 3 credits<br>**STAT 730** Multivariate Statistical Methods \| 3 credits | ***TO:***<br>*Core Courses (6 credit hours)*<br>**MATH 715** Applied Mathematics I \| 3 credits<br>**MATH 716** Applied Mathematics II \| 3 credits<br><br>*Elective Courses (minimum of 6 credit hours)*<br>**MATH 615** Introduction to Digital Image Processing \| 3 credits<br>**MATH 635** Dynamics, Chaos, and Fractals \| 3 credits<br><br>**MATH 725** The Mathematics of Data and Networks I<br><br>**Math 726** The Mathematics of Data and Networks II<br>**MATH 789** Combinatorial Analysis \| 3 credits<br><br>**MATH 801** Numerical Solution of Differential Equations I<br><br>**MATH 802** Numerical Solution of Differential Equations I<br><br>**IMSE 881** Linear Programming \| 3 credits<br>**IMSE 882** Network Flows and Graph Theory \| 3 credits<br>**IMSE 884** Integer Programming and Combinatorial Optimization \| 3 credits<br>**IMSE 982** Nonlinear Programming \| 3 credits<br><br>**ECE 840** Computer Engineering Methods for Analysis, Simulation, and Design \| 3 credits<br>**ECE 861** Noise Theory \| 3 credits<br>**ECE 963** Signal Detection Theory \| 3 credits<br>**ECE 965** Information Theory \| 3 credits<br><br>**CE 803** Numerical and Analytic Techniques for Engineers \| 3 credits<br><br>**STAT 704** Analysis of Variance \| 2 credits<br>**STAT 705** Regression and Correlation Analysis \| 2 credits |

| | |
|---|---|
| **STAT 736** Bioassay \| 2 credits<br>**STAT 745** Statistical Graphics \| 3 credits | **STAT 710** Sample Survey Methods \| 2 credits<br>**STAT 713** Applied Linear Statistical Models \| 4 credits<br>**STAT 716** Nonparametric Statistics \| 2 credits<br>**STAT 717** Categorical Data Analysis \| 3 credits<br>**STAT 720** Design of Experiments \| 3 credits .<br>**STAT 722** Experimental Design for Product Development and Quality Improvement \| 3 credits<br>**STAT 730** Multivariate Statistical Methods \| 3 credits<br>**STAT 736** Bioassay \| 2 credits<br>**STAT 745** Statistical Graphics \| 3 credits<br><br>**ME 820** Intermediate Topics in Thermal and Fluid Mechanics (Rational Mechanics of Fluids)<br><br>**CIS625** Concurrent Software Systems<br><br>**CIS770** Formal Language Theory<br><br>**CIS775** Analysis of Algorithms |

RATIONALE: It is proposed here to add elective courses to the curriculum of the Graduate Certificate in Applied Mathematics. The proposed changes are necessitated by both growth of the Applied Mathematics program at the Department of Mathematics, and increased interest to the Graduate Certificate in Applied Mathematics from other departments.

IMPACT: The proposed changes have been approved by the departments that offer the courses. Letters of support from the corresponding departments are attached.

EFFECTIVE DATE: Fall 2017

## College of Business Administration (3-15-17)

**Department of Finance**

**Finance**
**Financial Management (FINAN-FM)**
**Change in Major Field Electives**
http://catalog.k-state.edu/preview_program.php?catoid=13&poid=3384

| **Change From:** | **Change To:** |
|---|---|
| **Finance (B.S.)** | **Finance (B.S.)** |
| The finance curriculum allows the student to specialize in financial management, financial controllership, or financial services.<br>The financial management option provides the student with the analytical skills for the analysis, evaluation, and reporting of financial information. These activities are ultimately used in managerial decision making by businesses and regulatory agencies. This option is designed for graduates who wish to pursue a career as a financial manager or analyst.<br><br>The financial controllership option supplements the analytical focus of the financial management track with additional accounting skills. This option is designed for those who intend to pursue careers related to the controllership function of a firm.<br><br>The financial services option provides a broad knowledge of financial markets, institutions, and services and prepares the student for providing financial products and services to the consumer. Graduates in this option typically seek careers in banking, consumer lending, brokerage services, financial planning, portfolio management, and real estate.<br><br>Finance majors are expected to develop a broad understanding of business management, accounting, economic theory, management information systems, and quantitative techniques. In addition, effective written and oral communication skills and the ability to work in groups are essential for a successful career in finance. The curriculum of the Department of Finance is designed to help the student develop these necessary skills through active learning methods.<br>**Bachelor's degree requirements** | The finance curriculum allows the student to specialize in financial management, financial controllership, or financial services.<br>The financial management option provides the student with the analytical skills for the analysis, evaluation, and reporting of financial information. These activities are ultimately used in managerial decision making by businesses and regulatory agencies. This option is designed for graduates who wish to pursue a career as a financial manager or analyst.<br><br>The financial controllership option supplements the analytical focus of the financial management track with additional accounting skills. This option is designed for those who intend to pursue careers related to the controllership function of a firm.<br><br>The financial services option provides a broad knowledge of financial markets, institutions, and services and prepares the student for providing financial products and services to the consumer. Graduates in this option typically seek careers in banking, consumer lending, brokerage services, financial planning, portfolio management, and real estate.<br><br>Finance majors are expected to develop a broad understanding of business management, accounting, economic theory, management information systems, and quantitative techniques. In addition, effective written and oral communication skills and the ability to work in groups are essential for a successful career in finance. The curriculum of the Department of Finance is designed to help the student develop these necessary skills through active learning methods.<br>**Bachelor's degree requirements** |

**Business Administration Pre-Professions Program (54 credit hours)**

**Business Core (30 credit hours)**

**Major field requirements (15 credit hours)**

- ACCTG 331 - Intermediate Accounting Processes **Credits:** 3
- FINAN 510 - Financial Institutions and Markets **Credits:** 3
- FINAN 520 - Investments **Credits:** 3
- FINAN 575 - Intermediate Finance **Credits:** 3
- FINAN 675 - Cases in Finance **Credits:** 3

**Economics Electives (6 credit hours)**

1. Economics electives must be selected from economics course offerings numbered 500 or above (excluding ECON 505) in consultation with the student's academic advisor.
2. Economics electives may not overlap with economics courses used to complete a requirement within the finance major.

- Economics elective **Credits:** (3)
- ECON 510 - Intermediate Macroeconomics **Credits:** 3
  or
- ECON 520 - Intermediate Microeconomics **Credits:** 3

**Unrestricted electives (9 credit hours)**

Any course numbered 100-level or above offered for credit by a university department. Students are strongly encouraged to use their unrestricted electives to complete for-credit experiential learning opportunities, such as internships, community service/engagement, and study abroad.

**Financial Controllership (FC) Option (12 credit hours)**

- ACCTG 342 - Taxation I **Credits:** 3
- ACCTG 413 - Accounting Information Systems **Credits:** 3
- ACCTG 432 - Managerial Reporting **Credits:** 3
- ACCTG 433 - Financial Reporting **Credits:** 3

**Financial Management (FM) Option (12 credit hours)**

- ACCTG 433 - Financial Reporting **Credits:** 3

Choose *9 credit hours* from the following:

**Business Administration Pre-Professions Program (54 credit hours)**

**Business Core (30 credit hours)**

**Major field requirements (15 credit hours)**

- ACCTG 331 - Intermediate Accounting Processes **Credits:** 3
- FINAN 510 - Financial Institutions and Markets **Credits:** 3
- FINAN 520 - Investments **Credits:** 3
- FINAN 575 - Intermediate Finance **Credits:** 3
- FINAN 675 - Cases in Finance **Credits:** 3

**Economics Electives (6 credit hours)**

3. Economics electives must be selected from economics course offerings numbered 500 or above (excluding ECON 505) in consultation with the student's academic advisor.
4. Economics electives may not overlap with economics courses used to complete a requirement within the finance major.

- Economics elective **Credits:** (3)
- ECON 510 - Intermediate Macroeconomics **Credits:** 3
  or
- ECON 520 - Intermediate Microeconomics **Credits:** 3

**Unrestricted electives (9 credit hours)**

Any course numbered 100-level or above offered for credit by a university department. Students are strongly encouraged to use their unrestricted electives to complete for-credit experiential learning opportunities, such as internships, community service/engagement, and study abroad.

**Financial Controllership (FC) Option (12 credit hours)**

- ACCTG 342 - Taxation I **Credits:** 3
- ACCTG 413 - Accounting Information Systems **Credits:** 3
- ACCTG 432 - Managerial Reporting **Credits:** 3
- ACCTG 433 - Financial Reporting **Credits:** 3

**Financial Management (FM) Option (12 credit hours)**

- ACCTG 433 - Financial Reporting **Credits:** 3

Choose *9 credit hours* from the following:

- FINAN 623 Financial Modeling **Credits:** 3

| | |
|---|---|
| • FINAN 643 - International Financial Management **Credits:** 3<br>• FINAN 653 - Security and Portfolio Analysis **Credits:** 3<br>• FINAN 654 - Derivative Securities and Markets **Credits:** 3 | • FINAN 643 - International Financial Management **Credits:** 3<br>• FINAN 653 - Security and Portfolio Analysis **Credits:** 3<br>• FINAN 654 - Derivative Securities and Markets **Credits:** 3 |
| **Financial Services (FS) Option (12 credit hours)**<br><br>Choose **12 credit hours** from the following:<br><br>• ACCTG 445 - Financial Statement Analysis **Credits:** 3<br>• FINAN 460 - Insurance **Credits:** 3<br>• FINAN 531 - Commercial Banking **Credits:** 3<br>• FINAN 552 - Real Estate **Credits:** 3<br>• FINAN 653 - Security and Portfolio Analysis **Credits:** 3<br>• FINAN 654 - Derivative Securities and Markets **Credits:** 3<br>• FINAN 661 - Professional Financial Planning **Credits:** 3<br><br>**Total credit hours required for graduation: (126)** | **Financial Services (FS) Option (12 credit hours)**<br><br>Choose **12 credit hours** from the following:<br><br>• ACCTG 445 - Financial Statement Analysis **Credits:** 3<br>• FINAN 460 - Insurance **Credits:** 3<br>• FINAN 531 - Commercial Banking **Credits:** 3<br>• FINAN 552 - Real Estate **Credits:** 3<br>• FINAN 653 - Security and Portfolio Analysis **Credits:** 3<br>• FINAN 654 - Derivative Securities and Markets **Credits:** 3<br>• FINAN 661 - Professional Financial Planning **Credits:** 3<br><br>**Total credit hours required for graduation: (126)** |

**Rationale**
Change to add new course FINAN 623 Financial Modeling as an option for Financial Management (FINAN-FM).

**Impact On Other Units**
None

**Effective Date**
Fall 2017

**Department of Finance**

**Integrated Investment Management Certificate**
http://catalog.k-state.edu/preview_program.php?catoid=13&poid=3381

| Change From: | Change To: |
|---|---|
| **Integrated Investment Management Certificate** | **Integrated Investment Management Certificate** |
| The Certificate in Integrated Investment Management is intended for those business majors whose career interests lie in the investment management industry. The required courses are designed to provide these students with the fundamentals of investment management and a broader business perspective of the investment management industry. After completing this certificate students will be able to:<br>• Apply the principles of financial analysis to issues specific to the investment management industry, including the valuation of financial assets using fundamental analysis, the use of technical analysis for asset selection, and trading of assets in financial markets.<br>• Describe the role of each of the four major functional areas (accounting, finance, management, marketing, and information technology) in the investment management firm and illustrate the contributions of these areas to the success of the firm.<br>• Explore the legal and ethical environments within which investment management firms operate.<br>• Analyze financial statements and show their relationship to security valuation.<br>• Identify personal and professional skills necessary for success in the investment management industry.<br>In addition to three required courses, students seeking the certificate will also choose two elective courses best suited for their personal career choices. These courses are designed to provide further knowledge in specific functional areas.<br><br>Students enrolled in the Certificate program will have the opportunity to apply their discipline-specific knowledge to the management of the College's Student Investment Portfolio (SIP). This portfolio is actively managed by finance majors enrolled in FINAN 653 (Security and Portfolio Analysis). These students | The Certificate in Integrated Investment Management is intended for those business majors whose career interests lie in the investment management industry. The required courses are designed to provide these students with the fundamentals of investment management and a broader business perspective of the investment management industry. After completing this certificate students will be able to:<br>• Apply the principles of financial analysis to issues specific to the investment management industry, including the valuation of financial assets using fundamental analysis, the use of technical analysis for asset selection, and trading of assets in financial markets.<br>• Describe the role of each of the four major functional areas (accounting, finance, management, marketing, and information technology) in the investment management firm and illustrate the contributions of these areas to the success of the firm.<br>• Explore the legal and ethical environments within which investment management firms operate.<br>• Analyze financial statements and show their relationship to security valuation.<br>• Identify personal and professional skills necessary for success in the investment management industry.<br>In addition to three required courses, students seeking the certificate will also choose two elective courses best suited for their personal career choices. These courses are designed to provide further knowledge in specific functional areas.<br><br>Students enrolled in the Certificate program will have the opportunity to apply their discipline-specific knowledge to the management of the College's Student Investment Portfolio (SIP). This portfolio is actively managed by finance majors enrolled in FINAN 653 (Security and Portfolio Analysis). These students |

| | |
|---|---|
| make all investment decisions for the portfolio. The Certificate program will allow interested business students from all majors in the College to participate in and interact with the SIP. By integrating the SIP within the Certificate program, students will be able to apply knowledge within their specific functional area (accounting, finance, management, marketing, and information technology) to the management of the portfolio.<br><br>Students who have earned this Certificate will be able to distinguish themselves by demonstrating competency in the investment management industry, thereby enhancing their ability to better compete for jobs within the investment management and financial services industries.<br><br>**Certificate Requirements**<br>All students enrolled in the Certificate will take 9 credit hours of the core, and choose six credit hours from eligible electives. | make all investment decisions for the portfolio. The Certificate program will allow interested business students from all majors in the College to participate in and interact with the SIP. By integrating the SIP within the Certificate program, students will be able to apply knowledge within their specific functional area (accounting, finance, management, marketing, and information technology) to the management of the portfolio.<br><br>Students who have earned this Certificate will be able to distinguish themselves by demonstrating competency in the investment management industry, thereby enhancing their ability to better compete for jobs within the investment management and financial services industries.<br><br>**Certificate Requirements**<br>All students enrolled in the Certificate will take 9 credit hours of the core, and choose six credit hours from eligible electives. |
| **Integrated Investment Management Core Courses (9 credit hours)**<br>• FINAN 450 - Principles of Finance **Credits:** 3<br>• FINAN 451 - Introduction to Integrated Investment Management **Credits:** 3<br>• FINAN 500 - Investment Management Concepts **Credits:** 3 | **Integrated Investment Management Core Courses (9 credit hours)**<br>• FINAN 450 - Principles of Finance **Credits:** 3<br>• FINAN 451 - Introduction to Integrated Investment Management **Credits:** 3<br>• FINAN 500 - Investment Management Concepts **Credits:** 3 |
| **Elective Courses (6 credit hours)**<br>Select 2 of the following four courses<br>• ACCTG 445 - Financial Statement Analysis **Credits:** 3<br>• FINAN 653 - Security and Portfolio Analysis **Credits:** 3<br>• MANGT 566 - Computer Systems for Finance and Investment Management **Credits:** 3<br>• ~~MKTG 497 - Topics in Financial Services Marketing **Credits:** 3~~ | **Elective Courses (6 credit hours)**<br>Select 2 of the following four courses<br>• ACCTG 445 - Financial Statement Analysis **Credits:** 3<br>• <u>FINAN 623 – Financial Modeling **Credits:** 3</u><br>• FINAN 653 - Security and Portfolio Analysis **Credits:** 3<br>• MANGT 566 - Computer Systems for Finance and Investment Management **Credits:** 3 |
| **Course and Certificate Completion Notes**<br>Students must earn a minimum of 2.5 GPA on courses taken to fulfill the requirements of the Certificate in Integrated Investment Management.<br>No more than 25% of total credit hours required for the certificate may be transfer credits. Students must earn at least 75% of credits that apply to the certificate from Kansas State University or an approved university affiliate of Kansas State University in a foreign country.<br>Students will be able to substitute FINAN 510 and FINAN 520 (both must be completed) for FINAN 500. | **Course and Certificate Completion Notes**<br>Students must earn a minimum of 2.5 GPA on courses taken to fulfill the requirements of the Certificate in Integrated Investment Management.<br>No more than 25% of total credit hours required for the certificate may be transfer credits. Students must earn at least 75% of credits that apply to the certificate from Kansas State University or an approved university affiliate of Kansas State University in a foreign country.<br>Students will be able to substitute FINAN 510 and FINAN 520 (both must be completed) for FINAN 500. |

| | |
|---|---|
| • FINAN 510 - Financial Institutions and Markets **Credits:** 3<br>and<br>• FINAN 520 - Investments **Credits:** 3<br>Certificate can be completed by degree seeking students at Kansas State University or obtained as a credential on its own (free-standing). Students who do not intend to become a candidate for a bachelor's degree at Kansas State University must apply for admission as a non-degree, certificate-seeking student. Such students must submit the admission application, application fee, and transcripts. Applicants must provide documentation of high school or GED completion and, if college courses have been attempted, official transcripts demonstrating a cumulative GPA of 2.0 or higher for all post-secondary coursework. Students who later choose to pursue a bachelor's degree must apply for admission as a degree-seeking student.<br><br>**Total credit hours: (15)** | • FINAN 510 - Financial Institutions and Markets **Credits:** 3<br>and<br>• FINAN 520 - Investments **Credits:** 3<br>Certificate can be completed by degree seeking students at Kansas State University or obtained as a credential on its own (free-standing). Students who do not intend to become a candidate for a bachelor's degree at Kansas State University must apply for admission as a non-degree, certificate-seeking student. Such students must submit the admission application, application fee, and transcripts. Applicants must provide documentation of high school or GED completion and, if college courses have been attempted, official transcripts demonstrating a cumulative GPA of 2.0 or higher for all post-secondary coursework. Students who later choose to pursue a bachelor's degree must apply for admission as a degree-seeking student.<br><br>**Total credit hours: (15)** |

**Rationale**
Change to remove MKTG 497 Topics in Financial Services Marketing as an elective course for the certificate since it is no longer being taught and to add new course FINAN 623 Financial Modeling as an elective course.

**Impact On Other Units**
None

**Effective Date**
Fall 2017

**Department of Management**

**Data Analytics Certificate**
http://catalog.k-state.edu/preview_program.php?catoid=13&poid=10774

| **Change From:** | **Change To:** |
|---|---|
| Data analytics (DA) is the extensive use of analytical tools and technologies to develop insights from structured and unstructured data ("big data"). There is an increasing demand for managers and analysts with talents ("data savvy") in managing and analyzing data and applying the findings to fact-based decisions, action, and learning.<br>The purpose of the Certificate in DA is to provide an opportunity for K-State students to develop strong talent in such areas as data-driven problem understanding and solving, data collection and management, information visualization, and storytelling. The DA certificate will help K-State students to distinguish themselves as "data savvy" in their professional fields.<br>Other Requirements:<br>• Students must earn at least a 2.5 GPA on all courses taken to fulfill the requirements of the certificate program.<br>• The certificate will be issued by the K-State College of Business Administration and noted on the transcript.<br>• The certificate can be earned post-baccalaureate.<br>• Certificate can be completed by degree seeking students at Kansas State University or obtained as a credential on its own (free-standing). Students who do not intend to become a candidate for a bachelor's degree at Kansas State University must apply for admission as a non-degree, certificate-seeking student. Such students must submit the admission application, application fee, and transcripts. Applicants must provide documentation of high school or GED completion and, if college courses have been attempted, official transcripts demonstrating a cumulative GPA of 2.0 or higher for all post-secondary coursework. Students who later choose to pursue a bachelor's degree must apply for admission as a degree-seeking student. | Data analytics (DA) is the extensive use of analytical tools and technologies to develop insights from structured and unstructured data ("big data"). There is an increasing demand for managers and analysts with talents ("data savvy") in managing and analyzing data and applying the findings to fact-based decisions, action, and learning.<br>The purpose of the Certificate in DA is to provide an opportunity for K-State students to develop strong talent in such areas as data-driven problem understanding and solving, data collection and management, information visualization, and storytelling. The DA certificate will help K-State students to distinguish themselves as "data savvy" in their professional fields.<br>Other Requirements:<br>• Students must earn at least a 2.5 GPA on all courses taken to fulfill the requirements of the certificate program.<br>• The certificate will be issued by the K-State College of Business Administration and noted on the transcript.<br>• The certificate can be earned post-baccalaureate.<br>• Certificate can be completed by degree seeking students at Kansas State University or obtained as a credential on its own (free-standing). Students who do not intend to become a candidate for a bachelor's degree at Kansas State University must apply for admission as a non-degree, certificate-seeking student. Such students must submit the admission application, application fee, and transcripts. Applicants must provide documentation of high school or GED completion and, if college courses have been attempted, official transcripts demonstrating a cumulative GPA of 2.0 or higher for all post-secondary coursework. Students who later choose to pursue a bachelor's degree must apply for admission as a degree-seeking student. |

| | |
|---|---|
| **Core Courses (9 credit hours)**<br><br>• MIS 665 - Business Analytics and Data Mining **Credits:** 3<br>• MIS 670 - Social Media Analytics and Web Mining **Credits:** 3<br>• MKTG 580 - Business Intelligence for Strategic Decision Making **Credits**: 3<br><br>**Elective Courses**<br><br>**Select 2 of the following six courses:**<br>• ECON 630 - Introduction to Econometrics **Credits:** 3<br>• ~~FINAN 498 - Problems in Finance **Credits:** 1-18~~<br>• MANGT 521 - Quantitative Management **Credits:** 3<br>• MKTG 642 - Marketing Research **Credits:** 3<br>• MKTG 581 - Marketing Analytics **Credits:** 3<br>• MIS 422 - Studio 2: Business Database Systems **Credits:** 3<br><br>**Total Credit Hours: (15)** | **Core Courses (9 credit hours)**<br><br>• MIS 665 - Business Analytics and Data Mining **Credits**: 3<br>• MIS 670 - Social Media Analytics and Web Mining **Credits:** 3<br>• MKTG 580 - Business Intelligence for Strategic Decision Making **Credits:** 3<br><br>**Elective Courses**<br><br>**Select 2 of the following six courses:**<br>• ECON 630 - Introduction to Econometrics **Credits:** 3<br>• <u>FINAN 623 – Financial Modeling **Credits:** 3</u><br>• MANGT 521 - Quantitative Management **Credits:** 3<br>• MKTG 642 - Marketing Research **Credits:** 3<br>• MKTG 581 - Marketing Analytics **Credits:** 3<br>• MIS 422 - Studio 2: Business Database Systems **Credits:** 3<br><br>**Total Credit Hours: (15)** |

**Rationale**
Change elective in certificate from FINAN 498 Problems in Finance to new course FINAN 623 Financial Modeling.

**Impact On Other Units**
None

**Effective Date**
Fall 2017

## Department of Marketing

**New Undergraduate Major - Professional Strategic Selling**

**Admission Criteria:**
Selective admissions to the major will be employed; students must apply to the program, submitting a completed application form, transcript and resume and participating in an interview process. Criteria for selection will include academic performance, a demonstrated interest in a career in sales, and space availability.

A selective admissions process has been employed by other Kansas State University majors, including Interior Design (College of Human Ecology), Wildlife and Outdoor Management (College of Agriculture), and Athletic Training (College of Human Ecology).

**Other Requirements:**
None

Students will take the following coursework:

**Business Administration Pre-Professional** program (BAPP) consisting of **54 credit hours** of General Education courses.

**Business Core (30 hrs.)**

| | |
|---|---|
| ACCTG 231 | Accounting for Business Operations **Credits:** 3 |
| ACCTG 241 | Accounting for Investing and Finance **Credits:** 3 |
| FINAN 450 | Principles of Finance **Credits:** 3 |
| GENBA 101 | Business Orientation **Credits:** 0 |
| GENBA 110 | Business Foundations **Credits:** 3 |
| GENBA 166 | Business Information Technology Skills Proficiency **Credits:** 0 |
| MANGT 366 | Information Technology for Business **Credits:** 3 |
| MANGT 420 | Management Concepts **Credits:** 3 |
| MANGT 421 | Introduction to Operations Management **Credits:** 3 |
| MANGT 595 | Business Strategy **Credits:** 3 |
| MANGT 596 | Business Ethics and Corporate Citizenship **Credits:** 3 |
| MKTG 400 | Introduction to Marketing **Credits:** 3 |

**Required classes for Professional Strategic Selling Major (18 hrs)**:

| | |
|---|---|
| MKTG 542 | Fundamentals of Professional Selling **Credits:** 3 |
| MKTG 550 | Business Marketing **Credits:** 3 |
| MKTG 560 | Sales Force Leadership **Credits:** 3 |
| MKTG 565 | Customer Relationship Management **Credits:** 3 |
| MKTG 570 | Advanced Selling **Credits:** 3 |
| MKTG 499 | Sales Experiential Learning **Credits:** 3 |

**Major Electives (6 hrs, choose 2 from the following list)**:

| | |
|---|---|
| MKTG 450 | Consumer Behavior **Credits:** 3 |
| MKTG 496 | Special Topics in Marketing: Relationship Marketing **Credits:** 3 |
| MKTG 496 | Special Topics in Marketing: Cooperation Selling **Credits:** 3 |
| MKTG 544 | International Marketing **Credits:** 3 |

MKTG 546 Services Marketing **Credits:** 3
MKTG 545 Marketing Channels **Credits:** 3
MKTG 580 Business Intelligence for Strategic Decision Making **Credits:** 3

**Economic Electives (6 hrs.)**
Economics electives must be selected from economics course offerings numbered 500 or above **excluding ECON 505** in consultation with the student's academic advisor.
Economics electives may not overlap with economics courses used to complete other requirements for the marketing major.

**Unrestricted Electives (12 hrs)**

**Program Total of 126 Hours**

**Rationale**
Please see explanation below for extended rationale for a Major in Professional Strategic Selling.

**Impact On Other Units**
We expect the Major in Professional Strategic Selling to have little to no impact on other units. There may be a slight impact on the Marketing Major, in that a student currently pursuing a Marketing Major might pursue a sales major instead. However, both majors will be housed in the Department of Marketing and the demand for the courses in the Sales Major and the Marketing Major are expected to remain the same, roughly. Conversations with Directors of Programs at universities housing both sales and marketing majors report minimal impact; rather, both programs have grown since the introduction of the sales major (personal communication, October 16, 2016; Ellen Bolman Pullins, University of Toledo and Terry Loe, Kennesaw State University).

The Major will more likely affect the enrollment in the Certificate in Professional Strategic Selling program; however, the Certificate program will continue to serve non-College of Business Administration Majors seeking a career in sales, as well as College of Business Students who would like experience in sales without taking a full major. We expect the overall growth of the sales program to continue into the near future, with the certificate and major serving to complement one another.

**Effective Date**
Fall 2018

| | | |
|---|---|---|
| **1.** | **Program Identification** | **Bachelor of Science in Business Administration with a Major in Professional Strategic Selling**<br>CIP Code: 52.1804<br>Anticipated Effective Date: Fall 2018 |
| **2.** | **Academic Unit** | College of Business Administration; the initial department assuming responsibility for administering this program will be the Department of Marketing |
| **3.** | **Program Description** | **VISION FOR THE NATIONAL STRATEGIC SELLING INSTITUTE (NSSI) AND THE MAJOR IN PROFESSIONAL STRATEGIC SELLING:**<br>The Major in Professional Strategic Selling will be the program of choice for:<br>• High school and university students seeking a sales education;<br>• K-State students seeking to improve their marketability and job prospects;<br>• Companies seeking to hire top sales talent for entry-level roles.<br><br>The proposed major in Professional Strategic Selling will build upon the existing sales coursework in Marketing. The establishment of a major in professional strategic selling would:<br><br>1. Provide a full range of coursework aimed at developing students selling skills;<br>2. Provide an avenue for students who are seeking a sales career to more fully prepare for the realities of the sales role.<br>3. Allow KSU to compete for the growing number of students who desire the opportunity to study the professional strategic selling within the context of business.<br>4. Continue to develop strong connections with businesses locally as well as nationally; a sales major will influence the desire of businesses to recruit for entry level sales positions at K-State;<br>5. Meet the business community's ever-growing demand for well-prepared sales talent.<br><br>The Major in Professional Strategic Selling will focus on the business skills needed to be successful in a sales career. Moreover, this major will open numerous opportunities for our students; recent reports note that demand for well-qualified sales talent is high, and yet the availability of such talent is limited, largely because few universities offer programs in sales education.[1,2] |

[1] Fogel, Suzanne, David Hoffmeister, Richard Rocco, and Daniel P. Strunk (2012), "Teaching Sales," Harvard Business Review, July-August, Accessed Online October 16, 2016: https://hbr.org/2012/07/teaching-sales.

[2] Davidson, Paul (2013), "Bosses Lament: Sales Jobs Hard to Fill," USA Today, July 21, Accessed Online October 16, 2016: http://www.usatoday.com/story/money/business/2013/07/21/sales-job-openings/2568003/.

**4. Demand/Need for the Program**

The College of Business Administration (CBA) provides an excellent business education for its students, and has a strong reputation with many corporate and business partners in and outside the State of Kansas. Our new business building should only serve to strengthen this reputation. Placement rates of CBA graduates generally range in the area of 85-90% across all majors, economic situations notwithstanding. The majors offered in Business Administration include functional areas of Accounting, Finance, Management, Management Information Systems, and Marketing.

While a strong business education with a functional major satisfies many business students, it does not suit the special needs of a growing number interested in Sales. Students with an education in professional selling are in high demand, as evidenced by the 100% placement rate enjoyed by Kansas State University students currently taking coursework through the programming offered by the Department of Marketing's National Strategic Selling Institute. Yet universities with sales programs are rare, and universities with sales majors even more rare. As shown in Table 1, the University Sales Center Alliance (USCA) has identified 43 university sales programs, including Kansas State University, as meeting the organization's standards for excellence in university sales education. The Sales Education Foundation (SEF, salesfoundation.org) has identified 109 Top Universities in Sales (including Kansas State University), although it is worth noting that some of these programs offer only a single sales class rather than a full curriculum. Table 2 shows the number of sales majors offered throughout the country. Eighteen universities offer sales majors in 15 states, with no university offering a sales major in the state of Kansas.

We predict that demand for the Major in Professional Strategic Selling will be relatively high, mirroring the demand for the Certificate in Professional Strategic Selling introduced five years ago. The Certificate program has been quite successful, with a 770% growth in student demand since inception, and a 100% placement rate for students earning the certificate. A survey of current students enrolled in the Certificate in Professional Strategic Selling Program indicated 79% were interested in earning a sales major if such a program existed.

Further evidence of demand can be found in national employment statistics. Tables 3 and 4 show U.S. Bureau of Labor Statistics for employment by sales occupation, 2014 and projected 2024, as well as replacement rates and replacement needs. As shown, growth across sales occupations (with the exception of advertising sales) is steady, ranging from 1.8% projected growth for real estate brokers to 29.6% projected growth for personal financial advisors (a sales role); overall growth for sales occupations is projected at 5% 2014-2024, or roughly 778,000 new jobs. Further, replacement rates are expected to create a need for 1,876,300 sales jobs from 2014-2024 (U.S. Bureau of Labor Statistics). Indeed, companies are expected to lose 40% of senior sales talent by 2016,

according to the U.S. Department of Labor,[3] and a survey by CareerBuilder.com found that 35% of sales managers were unable to find qualified sales talent to fill open positions in June 2013.[4]

Growth in sales occupations is also expected within the state of Kansas. Table 5 reveals the number of sales and sales-related positions ranking as high demand occupations in the State of Kansas in 2015. Table 6 shows projected growth in sales occupations. As shown, growth in sales jobs in Kansas outpaces the national growth average of 5%, ranging from 5.51% to 27.56%.

Although the Certificate in Professional Strategic Selling has done much to establish our status as a top university for sales, it does not allow Kansas State University to compete for prospective students who want a broader depth of experience in sales, nor does it allow us to serve national and multi-national businesses seeking that same experience in new hires. In order to be more competitive with regional and national university sales programs and attract a broader range of future sales professionals to Kansas State University, it is necessary to develop a full business major in Professional Strategic Selling.

The major in Professional Strategic Selling is intended to complement, as well as provide resources and classes for, the Certificate in Professional Strategic Selling.

**IMPACT OF SALES MAJOR ON CONSTITUENT GROUPS**
**K-STATE UNDERGRADUATE STUDENTS:**

- K-State students receive the highest quality sales education, and all CBA students have developed fundamental selling skills.
- More students are able to access and complete the National Strategic Selling Institute Program, thereby improving their professional sales abilities and increasing their attractiveness to employers.
- More students are introduced to sales as a viable and lucrative career path.
- Students are hired by great firms and have successful careers, with entry level compensation packages ranging from approximately $45,000-$65,000.

**NSSI ALUMNI:**

- For NSSI alumni, the value of the Sales Certificate and Proposed Sales Major increases the value of their Degree; that is, as the quality reputation of the NSSI continues to grow nationally and

[3] Fogel, Suzanne, David Hoffmeister, Richard Rocco, and Daniel P. Strunk (2012), "Teaching Sales," Harvard Business Review, July-August, Accessed Online October 16, 2016: https://hbr.org/2012/07/teaching-sales.

[4] Davidson, Paul (2013), "Bosses Lament: Sales Jobs Hard to Fill," USA Today, July 21, Accessed Online October 16, 2016: http://www.usatoday.com/story/money/business/2013/07/21/sales-job-openings/2568003/.

internationally, so too does the value of their education through the NSSI.
- Alumni now in a position to hire will have the opportunity to recruit more great students.

**CORPORATE PARTNERS:**

- Corporate Partners receive even greater value by having more recruits from which to choose during the hiring process, and more opportunities to get involved in the NSSI program.
- The costs associated with recruiting, hiring, and onboarding are reduced; K-State sales graduates are able to hit the ground running, bringing in revenues faster than their counterparts who have not been through a university sales program. They are also more likely to stay in the position because they have a solid understanding of the demands of a career in sales.
- The visibility of the Corporate Partner's brand is increased on campus.

**OTHER HIRING FIRMS:**

- Non-Corporate Partners also benefit, as the number of students in the program outpaces the capacity for Corporate Partners to hire those students.
- Recruiting is more effective, with more qualified candidates obtained through a more efficient recruiting process.

**5. Comparative / Locational Advantage**

The National Strategic Selling Institute (NSSI) at Kansas State University has established itself quickly as a nationally-ranked top sales program, as evidenced by the caliber of organizations recruiting our students (See Table 7, NSSI Corporate Partner Program) and our performance in national sales competitions (See Table 8). Further evidence can be found in our Corporate Partnership with Schlumberger, an oil-servicing company based out of Houston, Texas. Schlumberger interviewed each of the sales programs in the country, with the goal of choosing the top four programs from which to recruit. At the end of their process, Schlumberger chose Kansas State University as one of the top four programs. Other prospective partners (e.g., Allsteel, Dell EMC) have mentioned their interest in the NSSI because of its national presence and reputation for excellent sales students.

The CBA, as part of the priority setting activities over the past four years, identified the National Strategic Selling Institute and the sales as one of its keys to pursuing national recognition. The reason is clear; sales talent is in high demand; according to a Manpower talent shortage survey and as reported in USA Today, sales representative is the second most difficult job to fill in today's workforce. Moreover, today's salesperson requires more technical knowledge and analytical skills to be successful.[5] Demand is outstripping supply, and, consequently, the number of sales

[5] Davidson, Paul (2013), "Bosses Lament: Sales Jobs Hard to Fill," USA Today, July 21, Accessed Online October 16, 2016: http://www.usatoday.com/story/money/business/2013/07/21/sales-job-openings/2568003/.

representatives making more than $100,000 has increased 12% from 2010 to 2012, moving from 8% to 20%.[6] This tracks with the excellent starting salaries received by our current NSSI graduates.

The above evidence suggests Kansas State University is well-positioned to offer a major in professional strategic selling. Companies are hungry for entry-level sales talent, and Kansas State University's proposed Major will provide companies with a badly needed resource, resulting in excellent careers for our students, both within the state of Kansas and nationwide.

**6. Curriculum**

**Admission Criteria:**
Students will be admitted to the major using a selective admissions process; students must apply to the program, submitting a completed application form, transcript and resume and participating in an interview process. Criteria for selection will include academic performance, a demonstrated interest in a career in sales, and space availability.

A selective admissions process has been employed by other Kansas State University majors, including Interior Design (College of Human Ecology), Wildlife and Outdoor Management (College of Agriculture), and Athletic Training (College of Human Ecology).

Students will take the following coursework:

**Business Administration Pre-Professional** program (BAPP) consisting of 54 hours of General Education courses.

**Business Core (30 hrs)**
ACCTG 231 Accounting for Business Operations **Credits**: 3
ACCTG 241 Accounting for Investing and Finance **Credits:** 3
GENBA 101 Business Orientation **Credits:** 0
GENBA 110 Business Foundations **Credits:** 3
GENBA 166 Bus Information Technology Skills Proficiency **Credits:** 0
MANGT 366 Information Technology for Business **Credits:** 3
MANGT 420 Management Concepts **Credits:** 3
MANGT 421 Introduction to Operations Management **Credits:** 3
MANGT 595 Business Strategy **Credits:** 3
MANGT 596 Business Ethics and Corporate Citizenship **Credits:** 3
MKTG 400 Introduction to Marketing **Credits:** 3

**Required classes for Professional Strategic Selling Major (18 hrs)**:
MKTG 542 Fundamentals of Professional Selling **Credits:** 3
MKTG 550 Business Marketing **Credits:** 3
MKTG 560 Sales Force Leadership **Credits:** 3
MKTG 565 Customer Relationship Management **Credits:** 3

[6] Krogue, Ken (2013), "Inside Sales Jobs and Career Demand up 54%: But Most Leverage Comes with Dialer Software and Lead Research," Forbes, March 29, Accessed Online October 16, 2016: http://www.forbes.com/sites/kenkrogue/2013/03/29/inside-sales-job-and-career-growth-up-54-but-most-leverage-comes-with-dialer-software-and-lead-research/#70409e1560cb.

MKTG 570 Advanced Selling **Credits:** 3
MKTG 499 Sales Experiential Learning **Credits:** 3

**Major Electives (6 hrs, choose 2 from the following list)**:
MKTG 450 Consumer Behavior **Credits:** 3
MKTG 496 Special Topics in Marketing: Relationship Marketing **Cr:** 3
MKTG 496 Special Topics in Marketing: Cooperation Selling **Cr:** 3
MKTG 544 International Marketing **Credits:** 3
MKTG 546 Services Marketing **Credits:** 3
MKTG 545 Marketing Channels **Credits:** 3
MKTG 580 Business Intelligence for Strategic Decision Making **Cr:** 3

**Economic Electives (6 hrs.)**
Economics electives must be selected from economics course offerings numbered 500 or above **excluding ECON 505** in consultation with the student's academic advisor.
Economics electives may not overlap with economics courses used to complete other requirements for the marketing major.

**Unrestricted Electives (12 hrs)**

**Program Total of 126 Hours**

**7. Faculty Profile**

**Tenured/Tenure-Track Faculty:**
Dr. Dawn Deeter-Schmelz, Ph.D., Professor and J.J. Vanier Distinguished Professor of Relational Selling and Marketing; Director, National Strategic Selling Institute

Dr. Edward Nowlin, Ph.D., Assistant Professor of Marketing

Dr. Douglas Walker, Ph.D., Assistant Professor of Marketing

**Instructors:**
Mr. David Lehman, Instructor of Marketing and Sales, M.B.A., Associate Director, National Strategic Selling Institute.

Mr. Tom Clark, Executive-in-Residence, Masters of Psychology

We have additional faculty within the department and the local business community who have expressed interest in teaching Sales Related Coursework.

**8. Student Profile**

There are many students on campus who are interested in sales as a career, and the recognition of the value of a sales degree is growing rapidly as word-of-mouth spreads about the success of our sales certificate students. Moreover, a recent study by Georgetown University, in conjunction with the Gates Foundation, revealed that sales represents one of the top four

occupations for 74% of all university students, regardless of major.[7] All industries need salespeople and thus any major would benefit from sales coursework; our Certificate in Professional Strategic Selling serves this group. The Major in Professional Strategic Selling, however, is intended to meet the needs of students majoring in business who want to pursue sales as a career. The demand for a sales major exists among our students; as mentioned previously, a recent survey of current NSSI students indicated 79% were interested in earning a sales major if such a program existed today.

**9. Academic Support**

This major is being initiated through the use of existing courses and one new course. Therefore, academic support for this program will be provided through existing resources.

**10. Facilities & Equipment**

No new facilities or equipment will be needed to implement this new major.

**11. Program Review, Assessment, & Accreditation**

Program review for the new major will fall within the responsibilities of the Department of Marketing and will be reviewed when its programs are reviewed. The Department of Marketing and the College of Business Administration will also be responsible for the assessment of the student learning outcomes. The College of Business Administration is accredited by the AACSB International, and this program will fall under that accreditation process.

**Assessment and Student Learning Objectives for the Major in Professional Strategic Selling**

| Student Learning Outcome | Method for Assessment |
|---|---|
| 1. Demonstrate an understanding of the customer-oriented sales process. | 1. Presented and evaluated in MKTG 542 Fundamentals of Professional Selling via role plays. |
| 2. Demonstrate an understanding of the sales coaching process and the role of effort in sales success. | 2. Presented and evaluated in MKTG 560 via assignments and role plays. |
| 3. Demonstrate the ability utilize a CRM System to manage a sales pipeline, | 3. Presented and evaluated in MKTG 570 Advanced Selling through the use of Salesforce.com. |

[7] Carnevale, Anthony P., Jeff Strohl and Michelle Meton (2011), "What's It Worth? The Economic Value of College Majors," Georgetown University Center on Education and the Workforce, (May 24), Accessed Online October 16, 2016, https://cew.georgetown.edu/cew-reports/whats-it-worth-the-economic-value-of-college-majors/.

| | |
|---|---|
| 4. Demonstrate proficiency in negotiations. | 4. Presented and evaluated in MKTG 550 Business Marketing via assignments. |
| 5. Demonstrate an understanding of sales analytics and customer relationship management. | 5. Presented and evaluated in MKTG 565 Customer Relationship Management (through assignments) and MKTG 560 Sales Force Leadership (through role plays). |

**12. Costs, Financing** There are no additional costs anticipated for this program.

## Table 1
## University Sales Programs in the U.S. Meeting University Sales Center Alliance Standards for Excellence in Sales Education

| State | Universities | | | |
|---|---|---|---|---|
| **Alabama** | University of North Alabama | | | |
| **Arkansas** | University of Arkansas – Little Rock | Arkansas State University | | |
| **California** | California State University Chico | California State University Fullerton | | |
| **Colorado** | Metropolitan State University | | | |
| **Florida** | Florida State University | | | |
| **Georgia** | Georgia Southern University | Kennesaw State University | | |
| **Illinois** | Bradley University | DePaul University | Illinois State University | Northern Illinois University |
| **Indiana** | Ball State University | Indiana University | Indiana State University | Purdue University |
| **Iowa** | St. Ambrose University | | | |
| **Kansas** | **Kansas State University** | | | |
| **Kentucky** | Western Kentucky University | | | |
| **Maryland** | Salisbury University | | | |
| **Louisiana** | Louisiana State University | | | |
| **Michigan** | Michigan State University | | | |
| **Minnesota** | St. Catherine University | Winona State University | | |
| **New Hampshire** | Plymouth State University | | | |
| **New Jersey** | William Paterson University | | | |
| **North Carolina** | Elon University | High Point University | | |
| **North Dakota** | North Dakota State University | | | |
| **Ohio** | University of Akron | University of Toledo | | |
| **Oklahoma** | University of Central Oklahoma | | | |
| **Texas** | Baylor University | Texas State University San Marcos | Texas A&M University | University of Texas - Dallas |
| **Utah** | Weber State University | | | |
| **Virginia** | Virginia Tech University | James Madison University | | |
| **West Virginia** | West Virginia University | | | |
| **Wisconsin** | University of Wisconsin Eau Claire | University of Wisconsin Whitewater | | |

Source: University Sales Center Alliance, as of January 24, 2017, www.universitysalescenteralliance.org

## Table 2
## 18 Universities Offering Sales Majors in the U.S.

| State | Universities | | |
|---|---|---|---|
| **Alabama** | University of North Alabama | | |
| **Florida** | Florida State University | Nova Southeastern University | |
| **Georgia** | Kennesaw State University | | |
| **Illinois** | Illinois State University | | |
| **Indiana** | Ball State University | Indiana University | Purdue University |
| **Kansas** | **Proposed: Kansas State University** | | |
| **Kentucky** | Western Kentucky University | | |
| **Michigan** | Western Michigan University | | |
| **Nebraska** | University of Nebraska Kearney | | |
| **New Jersey** | William Paterson University | | |
| **North Carolina** | Western Carolina University | | |
| **Ohio** | University of Akron | University of Toledo | |
| **Oklahoma** | University of Central Oklahoma | | |
| **Texas** | Baylor University | | |
| **Utah** | Weber State University | | |

Source: Sales Education Foundation 2015 Top Universities in Sales, Accessed on October 16, 2016, http://www.salesfoundation.org/wp-content/uploads/2015/04/SEF1501_Magazine_Issue7_Listing.pdf.

## Table 3
## U.S. Bureau of Labor Statistics, Employment by Sales Occupation, 2014 and Projected 2024 (Numbers in thousands)

| 2014 National Employment Matrix Title | Employment | | | | Change, 2014-24 | | Job openings due to growth and replacements, 2014-2024 |
|---|---|---|---|---|---|---|---|
| | Number | | % distribution | | | | |
| | 2014 | 2024 | 2014 | 2024 | Number | % | |
| Sales managers | 376.3 | 395.3 | 0.2 | 0.2 | 19.0 | 5.1 | 108.0 |
| Personal financial advisors | 249.4 | 323.2 | 0.2 | 0.2 | 73.9 | 29.6 | 136.4 |
| Supervisors of sales workers | 1,968.5 | 2,056.4 | 1.3 | 1.3 | 87.9 | 4.5 | 481.2 |
| Advertising sales agents | 167.9 | 163.4 | 0.1 | 0.1 | -4.5 | -2.7 | 49.8 |
| Insurance sales agents | 466.1 | 509.5 | 0.3 | 0.3 | 43.5 | 9.3 | 165.8 |
| Securities, commodities, and financial services sales agents | 341.5 | 374.0 | 0.2 | 0.2 | 32.5 | 9.5 | 91.4 |
| Sales representatives, services, all other | 853.5 | 924.1 | 0.6 | 0.6 | 70.6 | 8.3 | 252.4 |
| Sales representatives, wholesale and manufacturing, technical and scientific products | 347.8 | 371.7 | 0.2 | 0.2 | 23.8 | 6.9 | 95.4 |
| Sales representatives, wholesale and manufacturing, except technical and scientific products | 1,453.1 | 1,546.5 | 1.0 | 1.0 | 93.4 | 6.4 | 392.3 |
| Real estate brokers | 83.9 | 85.4 | 0.1 | 0.1 | 1.5 | 1.8 | 7.3 |
| Real estate sales agents | 337.4 | 346.8 | 0.2 | 0.2 | 9.4 | 2.8 | 33.0 |
| Sales engineers | 69.9 | 74.9 | 0.0 | 0.0 | 4.9 | 7.0 | 23.0 |
| Source: Employment Projections program, U.S. Bureau of Labor Statistics | | | | | | | |

## Table 4
## U.S. Bureau of Labor Statistics, National Employment Change, Replacement Needs, and Job Openings Projected 2014-2024
## (Numbers in thousands)

| 2014 National Employment Matrix title | Employment | | Change, 2014-24 | | 2014-24 Replacement rate | 2014-24 Replacement needs | Job openings due to growth and replacement needs, 2014-24 |
|---|---|---|---|---|---|---|---|
| | 2014 | 2024 | Number | Percent | | | |
| Sales managers | 376.3 | 395.3 | 19.0 | 5.1 | 23.6 | 89.0 | 108.0 |
| Personal financial advisors | 249.4 | 323.2 | 73.9 | 29.6 | 25.1 | 62.6 | 136.4 |
| Supervisors of sales workers | 1,968.5 | 2,056.4 | 87.9 | 4.5 | 20.0 | 393.3 | 481.2 |
| Advertising sales agents | 167.9 | 163.4 | -4.5 | -2.7 | 29.6 | 49.8 | 49.8 |
| Insurance sales agents | 466.1 | 509.5 | 43.5 | 9.3 | 26.3 | 122.4 | 165.8 |
| Securities, commodities, and financial services sales agents | 341.5 | 374.0 | 32.5 | 9.5 | 17.2 | 58.9 | 91.4 |
| Sales representatives, services, all other | 853.5 | 924.1 | 70.6 | 8.3 | 21.3 | 181.8 | 252.4 |
| Sales representatives, wholesale and manufacturing, technical and scientific products | 347.8 | 371.7 | 23.8 | 6.9 | 20.6 | 71.6 | 95.4 |
| Sales representatives, wholesale and manufacturing, except technical and scientific products | 1,453.1 | 1,546.5 | 93.4 | 6.4 | 20.6 | 298.9 | 392.3 |
| Real estate brokers and sales agents | 421.3 | 432.1 | 10.9 | 2.6 | 7.0 | 29.4 | 40.3 |
| Real estate brokers | 83.9 | 85.4 | 1.5 | 1.8 | 7.0 | 5.9 | 7.3 |
| Real estate sales agents | 337.4 | 346.8 | 9.4 | 2.8 | 7.0 | 23.5 | 33.0 |
| Sales engineers | 69.9 | 74.9 | 4.9 | 7.0 | 25.9 | 18.1 | 23.0 |
| Source: Employment Projections program, U.S. Bureau of Labor Statistics | | | | | | | |

**Table 5**
**High Demand Occupations, Kansas, 2015**

| High Demand Occupations – Sales Roles – Kansas – 2015 | | | | | | |
|---|---|---|---|---|---|---|
| SOC Title | JVS[1] | ST[2] | LT[3] | Total Score | Rank out of 439 | Median Annual Wage[4] |
| Customer Service Representatives | 10 | 10 | 10 | 30 | 4 | $30,480 |
| Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products | 5 | 10 | 9 | 24 | 39 | $56,030 |
| Sales Representatives, Services, All Other | 6 | 9 | 9 | 24 | 40 | $50,690 |
| Insurance Sales Agents | 5 | 8 | 7 | 20 | 64 | $56,990 |
| Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products | 0 | 8 | 6 | 14 | 125 | $75,820 |
| Sales Managers | 0 | 6 | 5 | 11 | 166 | $96,770 |
| Securities, Commodities, and Financial Services Sales Agents | 0 | 5 | 5 | 10 | 190 | $83,600 |
| Advertising Sales Agents | 1 | 3 | 4 | 8 | 229 | $44,230 |
| Real Estate Sales Agents | 4 | 2 | 2 | 8 | 230 | $37,630 |
| Sales and Related Workers, All Other | 0 | 1 | 2 | 3 | 368 | $24,540 |
| Sales Engineers | 0 | 1 | 0 | 1 | 409 | $79,550 |

Source: Kansas Department of Labor, Labor Market Information Services (LMIS).

* 2014 Edition of the Kansas Wage Survey data, Kansas 2015 wage data is not available.

** 2015 U.S. wage data, Kansas wage data is not available.

1. Job Vacancy Survey Score is based off of the 2015 Kansas Job Vacancy Survey.

2. Short-term Projections Score is based off of the 2014-2016 round of projection data.

3. Long-term Projection Score is based off of the 2012-2022 round of projection data.

4. Wage data is from the 2015 Edition of the Kansas Wage Survey (data collected in 2014).

## Table 6
## Occupational Projections (Long-Term) for Sales Occupations in Kansas, 2012-2022

| Occupation | Occupation Code | 2012 Estimated Employment | 2022 Projected Employment | Total 2012-2022 Employment Change | Annual Avg. Percent Change | Total Percent Change |
|---|---|---|---|---|---|---|
| Sales and Related | 410000 | 142,636 | 151,324 | 8,688 | 0.59% | 6.09% |
| Sales Representatives, Services | 413000 | 15,880 | 18,241 | 2,361 | 1.40% | 14.87% |
| Sales Representatives, Wholesale and Manufacturing | 414000 | 19,327 | 20,411 | 1,084 | 0.55% | 5.61% |
| Insurance Sales Agents | 413021 | 4,553 | 5,163 | 610 | 1.27% | 13.40% |
| Real Estate Brokers | 419021 | 719 | 790 | 71 | 0.95% | 9.87% |
| Real Estate Sales Agents | 419022 | 1,295 | 1,428 | 133 | 0.98% | 10.27% |
| Sales and Related Workers, All Other | 419099 | 763 | 849 | 86 | 1.07% | 11.27% |
| Sales Engineers | 419031 | 441 | 469 | 28 | 0.62% | 6.35% |
| Sales Representatives, Services, All Other | 413099 | 7,678 | 9,046 | 1,368 | 1.65% | 17.82% |
| Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products | 414012 | 15,364 | 16,210 | 846 | 0.54% | 5.51% |
| Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products | 414011 | 3,963 | 4,201 | 238 | 0.58% | 6.01% |
| Securities, Commodities, and Financial Services Sales Agents | 413031 | 1,771 | 2,259 | 488 | 2.46% | 27.56% |

Source: Occupational Employment Statistics and Wages Program
Downloaded: 10/16/2016 2:06 PM

**Table 7**
**National Strategic Selling Institute Corporate Partners: Companies Investing in and Recruiting K-State Sales Students**

| Partner Level | Annual Investment | Corporate Partner |
|---|---|---|
| **Strategic Partner** | $15,000 | Ninja Selling<br>Huhtamaki North America, Inc. |
| **Partner** | $10,000 | Edward Jones<br>Ferguson<br>Frito Lay<br>Northwestern Mutual<br>Schlumberger<br>Security Benefit<br>Textron Aviation |
| **Associate Partner** | $5,000 | C.H. Robinson<br>Consolidated Electrical Distributors, Inc.<br>Ethos Group<br>Fastenal<br>Hormel Foods<br>Shamrock Trading<br>Union Pacific |

**Table 8**
**Success of Kansas State University NSSI Students in National Sales Competitions**

| Date | Competition | Kansas State University Results |
|---|---|---|
| **October 2013** | Great Northwoods Sales Warm-Up | Emily Jardine, 2nd place |
| **October 2014** | National Sales Decathlon | Austin Robisch, 1st place overall<br>Armani Williams, 1st place, face-to-face call, 3rd place telephone call |
| **November 2014** | RBI National Sales Challenge | Helen Dinkel, 1st place overall |
| **November 2015** | International Collegiate Sales Competition | Nick Ramsey and Mike Schonwetter, 3rd place overall, Sales Management Case Competition<br>Helen Dinkel, Semi-Finalist, Role Play Competition<br>Helen Dinkel and Armani Williams, 4th place team (out of 60 university teams), Role Play Competition |
| **November 2015** | Northeast Intercollegiate Sales Competition | Kasey Kowalski, Semi-Finalist<br>Christopher Earnshaw, Ashley Ebeck, Anna Vandermark, Quarter-Finalists<br>Racya Doyle, Christopher Earnshaw, Ashley Ebeck, Kasey Kowalski, Anna Vandermark, Rookie of the Year Team |
| **February 2016** | University of Toledo Invitational Sales Competition | Nick Ramsey, Semi-Finalist |
| **April 2016** | National Collegiate Sales Competition | Helen Dinkel, Semi-Finalist<br>Helen Dinkel and Kasey Kowalski, 6th place team (out of 68 university teams)<br>Blair Kocher, 1st place, graduate division needs analysis<br>Blair Kocher and Kelly Jackson, 2nd place team, graduate division |
| **October 2016** | Huhtamaki Invitational: K-State vs. Mizzou | Jacqueline Clawson, 1st place, sophomore division; Molly Young, 1st place, senior division and 1st place overall |
| **November 2016** | International Collegiate Sales Competition | Rachel Kipper, Semi-Finalist, 5th place overall<br>Rachel Kipper and Katy Fernandes, 9th place team (out of 70 university teams) |
| **November 2016** | Schlumberger Team Sales Competition | Nick Ramsey and Ashley Ebeck, 1st place team |

| Criteria | Program Summary Form |
|---|---|
| 1. Program Identification | **Bachelor of Science in Business Administration with a Major in Professional Strategic Selling**<br>CIP Code: 52.1804<br>Anticipated Effective Date: Fall 2018 |
| 2. Academic Unit | College of Business Administration; the initial department assuming responsibility for administering this program will be the Department of Marketing |
| 3. Program Description | The Major in Professional Strategic Selling will focus on the business skills needed to be successful in a sales career, including customer-oriented selling, prospecting, account management, customer relationship management, negotiation, sales analytics, sales technology, and sales leadership. Students will take a full range of coursework designed to develop their selling skills, thereby fully preparing these students for the realities of the sales role.<br><br>Approval is requested for Fall 2018; 2018-2019 will be the first year of implementation. |
| 4. Demand/Need for the Program | Universities with sales programs are rare, and universities with sales majors even more rare (only 18 in the U.S., and none in Kansas). Demand for the Certificate in Professional Strategic Selling, introduced in 2012, has been astronomical, with a 770% growth in student demand since inception and a 100% placement rate for students earning the certificate. A survey of current students enrolled in the Certificate in Professional Strategic Selling Program indicated 79% were interested in earning a sales major if such a program existed.<br><br>U.S. Bureau of Labor Statistics for employment by sales occupation, 2014 and projected 2024, reveal steady growth across sales occupations; overall growth is projected at 5%, or roughly 778,000 new jobs between 2014-2024. Replacement rates are expected to create a need for 1,876,300 sales jobs from 2014-2024.[8] Further, companies are expected to lose 40% of senior sales talent by 2016, according to the U.S. Department of Labor,[9] and a survey by CareerBuilder.com found that 35% of sales managers were unable to find qualified sales talent to fill open positions in June 2013.[10] Businesses will need well-prepared sales talent to fill these positions. |

[8] Source: Employment Projections program, U.S. Bureau of Labor Statistics

[9] Fogel, Suzanne, David Hoffmeister, Richard Rocco, and Daniel P. Strunk (2012), "Teaching Sales," Harvard Business Review, July-August, Accessed Online October 16, 2016: https://hbr.org/2012/07/teaching-sales.

[10] Davidson, Paul (2013), "Bosses Lament: Sales Jobs Hard to Fill," USA Today, July 21, Accessed Online October 16, 2016: http://www.usatoday.com/story/money/business/2013/07/21/sales-job-openings/2568003/.

| | |
|---|---|
| 5. Comparative /Locational Advantage | The National Strategic Selling Institute (NSSI) at Kansas State University has established itself quickly as a nationally-ranked top sales program, as evidenced by the caliber of national organizations recruiting our students. The NSSI is the only sales program in Kansas to meet the standards for sales excellence set by the University Sales Center Alliance, and Kansas State been recognized as a top university for sales by the Sales Education Foundation for each of the past six years. Further, no university in Kansas offers a sales major, and only 18 universities offer a sales major across the U.S. A sales major would further identify K-State as one of the leading universities in sales education. |
| 6. Curriculum | This 126-credit hour program consists of (1) 63 hours of Business Administration Pre-Professional Courses (including General Education courses); (2) 21 hours of Business Core Courses; (3) 18 hours required classes for the Professional Strategic Selling Major; (4) six hours of electives for the Professional Strategic Selling Major; (5) six hours of restricted electives from humanities, natural sciences, quantitative, or social sciences; and (6) 12 hours of unrestricted electives. |
| 7. Faculty Profile | The faculty required to teach the Major in Professional Strategic Selling are currently on staff. The three tenure-track faculty members who have doctoral degrees relevant to sales and maintain active research programs in the discipline include:<br>• Dr. Dawn Deeter-Schmelz, Ph.D., Professor and J.J. Vanier Distinguished Professor of Relational Selling and Marketing; lead faculty member and Director, National Strategic Selling Institute. Dr. Deeter has taught and researched in the sales area for over 20 years and is a strong leader in the discipline, serving as President of the University Sales Center Alliance and President-Elect of the Global Sales Science Institute.<br>• Dr. Edward Nowlin, Ph.D., Assistant Professor of Marketing. Dr. Nowlin has an extensive research record in sales and has taught in the field since 2009.<br>• Dr. Douglas Walker, Ph.D., Associate Professor of Marketing. Dr. Walker is an analytics expert and has extensive experience teaching customer relationship management at the University of Houston and Iowa State University. He will be leading the sales analytics and customer relationship management courses.<br><br>We also have an excellent instructor, Mr. David Lehman, M.B.A., who serves as Associate Director of the National Strategic Selling Institute. Mr. Lehman has been teaching sales classes for over twenty years, and came to K-State after a successful career in sales with Dow Chemical and UMB Bank. We are also utilizing an Executive-in-Residence with extensive sales experience. Other faculty within the department have expressed interest in teaching sales coursework as the need arises. |

| | |
|---|---|
| 8. Student Profile | There are many students on campus who are interested in sales as a career, and the recognition of the value of a sales degree is growing rapidly as word-of-mouth spreads about the success of our sales certificate students. Moreover, a recent study by Georgetown University, in conjunction with the Gates Foundation, revealed that sales represents one of the top four occupations for 74% of all university students, regardless of major.[11] All industries need salespeople and thus any major would benefit from sales coursework; our Certificate in Professional Strategic Selling serves this group. The Major in Professional Strategic Selling, however, is intended to meet the needs of students majoring in business who want to pursue sales as a career. The demand for a sales major exists among our students; as mentioned previously, a recent survey of current NSSI students indicated 79% were interested in earning a sales major if such a program existed today. |
| 9. Academic Support | This major is being initiated through existing courses and one new course. Therefore, academic support for this program will be provided through existing resources. Advising for the program will follow the College of Business Advising model, with students assigned an advisor through the College of Business Student Resource Center. |
| 10. Facilities and Equipment | The program currently houses six sales role play rooms, including technology, a conference room that includes sales technology and webinar capabilities, and access to a behavioral research lab within the National Strategic Selling Institute. Consequently, no new facilities or equipment will be needed to implement this new major. |
| 11. Program Review, Assessment, Accreditation | The College of Business Administration is accredited by the AACSB International, and this program will fall under that accreditation process. Further, the NSSI has met the standards established by the University Sales Center Alliance and is a member in good standing. An assessment plan for student outcomes includes evaluation of student role plays, assignments, projects and tests. This program may also be subject to additional assessment processes from the Higher Learning Commission and the Kansas Board of Regents. |
| 12. Costs, Financing | No additional (new) costs are anticipated for this program. Faculty and administrative salaries for the implementation year are $222,860.53, with operational costs of $4000. Faculty salaries are paid by a combination of general use funds and private funding sources. Administrative salaries and stipends are paid via private funding sources. |

[11] Carnevale, Anthony P., Jeff Strohl and Michelle Meton (2011), "What's It Worth? The Economic Value of College Majors," Georgetown University Center on Education and the Workforce, (May 24), Accessed Online October 16, 2016, https://cew.georgetown.edu/cew-reports/whats-it-worth-the-economic-value-of-college-majors/.

**CURRICULUM OUTLINE**
**NEW DEGREE PROPOSALS**
**Kansas Board of Regents**

## I. Identify the new degree:

Major in Professional Strategic Selling

## II. Provide courses required for each student in the major:

| | Course Name & Number | Credit Hours | |
|---|---|---|---|
| **Core Courses** | MKTG 542 Fundamentals of Professional Selling | 3 | |
| | MKTG 550 Business Marketing | 3 | |
| | MKTG 560 Sales Force LeadershipSales Force Leadership | 3 | |
| | MKTG 565 Customer Relationship Management | 3 | |
| | MKTG 570 Advanced Selling | 3 | |
| | MKTG 499 Sales Experiential Learning Sales Experiential Learning | 3 | |
| | Total Hours Core Courses | | 18 |
| **Electives** | *Choose two (2) from the following list:* | | |
| | MKTG 450 Consumer Behavior | 3 | |
| | MKTG 496 Special Topics in Marketing: Relationship Marketing | 3 | |
| | MKTG 496 Special Topics in Marketing: Cooperation Selling | 3 | |
| | MKTG 544 International Marketing | 3 | |
| | MKTG 496 Services Marketing | 3 | |
| | MKTG 545 Marketing Channels | 3 | |
| | MKTG 580 Business Intelligence for Strategic Decision Making | 3 | |
| | Total Hours Electives | | 6 |
| **Research** | n/a | | |
| **Practica** | n/a | | |
| | **Total Hours** | | 24 |

IMPLEMENTATION YEAR FY 2018-2019
Fiscal Summary for Proposed Academic Programs
Institution: Kansas State University Proposed Program: Major in Professional Strategic Selling

| **Part I. Anticipated Enrollment** | Implementation Year | | Year 2 | | Year 3 | |
|---|---|---|---|---|---|---|
| | Full-Time | Part-Time | Full-Time | Part-Time | Full-Time | Part-Time |
| A. Full-time, Part-time Headcount: | 30 | 0 | 50 | 0 | 75 | 0 |
| B. Total SCH taken by all students in program | 720 | | 1200 | | 1800 | |

| **Part II. Program Cost Projection** | | | |
|---|---|---|---|
| A. In implementation year one, list all identifiable General Use costs to the academic unit(s) and how they will be funded. In subsequent years, please include only the additional amount budgeted. | | | |
| | Implementation Year | Year 2 | Year 3 |
| Base Budget Faculty/Admin. Salaries | $222,860.53 | $222,860.53 | $351,360.63 |
| OOE | $4000.00 | $4000.00 | $4000.00 |
| Total | $226,860.53 | $226,860.53 | $356,360.63 |

**Salary Breakdown**[a]

| **Faculty** | **Salary (A)** | **Teaching % Year 1 (B)** | **Teaching Salary Year 1 (A*B)** | **Teaching % Year 2 (B)** | **Teaching Salary Year 2 (A*B)** | **Teaching % Year 3 (C)** | **Teaching Salary Year 3 (A*C)** |
|---|---|---|---|---|---|---|---|
| Dawn Deeter[b] | $189,634.78 | 25% | $47,408.70 | 25% | $47,408.70 | 50% | $94,817.39 |
| Doug Walker[b] | $129,000.00 | 25% | $32,250.00 | 25% | $32,250.00 | 50% | $64,500.00 |
| Edward Nowlin[b] | $135,000.00 | 25% | $33,750.00 | 25% | $33,750.00 | 50% | $67,500.00 |
| David Lehman[c] | $72,491.16 | 12.5% | $9,061.40 | 25% | $9,061.40 | 50% | $18,122.79 |
| Tom Clark[d] | $12,000.00 | 50% | $6,000.00 | 50% | $6,000.00 | 100% | $12,000.00 |
| **Teaching Sub-total** | | | **$128,470.10** | | **$128,470.10** | | **$256,940.20** |
| | | **Admin. % (D)** | **Admin. Salary Year 1 (A*D)** | **Admin. % (D)** | **Admin. Salary Year 1 (A*D)** | **Admin. % (D)** | **Admin Salary Year 1 (A*D)** |
| Dawn Deeter-Director | $189,634.78 | 30% | $56,890.43 | 30% | $56,890.43 | 30% | $56,890.43 |
| David Lehman–Associate Director | $72,491.16 | 20.7% | $15,000.00 | 20.7% | $15,000.00 | 20.7% | $15,000.00 |
| Kellie Jackson-Program Associate (Admin) | $45,000.00 | 50% | $22,500.00 | 50% | $22,500.00 | 50% | $22,500.00 |
| **Admin. Sub-Total** | | | **$94,390.43** | | **$94,390.43** | | **$94,390.43** |
| **Total Salary** | | | **$222,860.53** | | **$222,860.53** | | **$351,330.63** |

Notes:

[a]Faculty salaries are paid from a combination of general use and private funding sources. Administrative salaries are paid from private funding sources.

[b]Tenure-track faculty teaching percentages based on 2/2 teaching load. For all tenure-track faculty, the salary portions for non-instructional activities such as research and service are not included.

[c]David Lehman is Instructor of Marketing; teaching % based on 4/4 Instructor teaching load.

[d]Tom Clark is Executive-in-Residence; teaching % based on 2/0 Executive-in-Residence teaching load.

Indicate source and amount of funds if other than internal reallocation: All funding sources will be due to internal reallocation and private funding, i.e., through J.J. Vanier Distinguished Chair in Business Administration (held by Dawn Deeter) and funds raised by the National Strategic Selling Institute.

Revised: September, 2003

Approved: _____

## College of Engineering (4-6-17)

**General Engineering**

FROM:

DEN 015 – ~~New Student Orientation~~ Seminar.

Credits: 0

~~Introduction to the College of Engineering. Emphasis in on new student (Freshmen and transfer) transition to college life. Students. Obtain computer id's, information on college procedures (drop/add, curriculum change, and wait list), and receive guidance on how to become a successful student in the College of Engineering. NSOS has a lecture/small group discussion format and meets only 3-4 times at the beginning of the semester.~~

Typically offered: Fall and Spring

**DEN 015** – Engineering Student Success Seminar

**Credits:** 0

Supports engineering students in identifying potential barriers to student success and gaining access to related campus resources. Students will participate in interactive small groups and discussions. This course will also assist students in developing effective academic skills including, but not limited to: time management, organization, learning styles, effective communication, academic planning and goal setting.

**Note:**
One hour per week.
Repeatable

**Requisites:**
Prerequisite: General Engineering students only.
Prerequisite and/or co-requisite: Math 100 or Math 150.

**Typically offered:**
Fall, Spring

Rationale: DEN 015 is being redesigned to accommodate first year engineering students who are academically unprepared to start in a typical first semester of a degree program within the College of Engineering. This course will focus on academic success and equip students with the necessary study skills and awareness to campus resources that will help develop behaviors necessary to be successful in an engineering degree program.

Impact: None outside the College

Effective: Fall 2017

**College of Engineering (4-27-17)**

# Non-Expedited COURSE PROPOSALS
# Courses Numbered 000-599

Architectural Engineering

From:

ARE 460 – ARE Professional Practice (3) General business, management, and contractual procedures in professional practice. Personal development of skills needed to enter and be accepted in the industry today.

**Note**
3 hours recitation per week.

**Requisites**
Prerequisite: Must be taken concurrently with ARE 551, ARE 552, ARE 553, and CE 537.

**Offered**
Fall, Spring

**UGE course**
No

**K-State 8**
None

**TO:**

ARE 460 – ARE Professional Practice (3) General business, management, and contractual procedures in professional practice. Personal development of skills needed to enter and be accepted in the industry today.

**Note**
3 hours recitation per week.

**Requisites**
Prerequisite: Must be taken concurrently with ARE 551, ARE 552, ARE 553, and CE 537.

**Offered**
Fall, Spring

**UGE course**
No

**K-State 8**
Ethical Reasoning and Responsibility

**Rationale:** This course replaced ARE 539 Architectural Engineering Management in the old 5-year degree plan which carried this K-State 8 tag. The intent was to continue the K-State 8 tag of Ethics Reasoning and Responsibility

in this similar content course. The course touches on ethics in a variety of professional practice areas with specific focus on the code of ethics for engineers published by the National Society of Professional Engineers.

**Effective:** Fall 2017

**Impact:** None

**Mechanical Engineering**

**From:**

**ME 574 - Interdisciplinary Industrial Design Projects I**

**Credits:** 3

Introduction to design theory, project management, team dynamics and socio-economic context of design, etc.; application of design principles, engineering analysis and experimental methods to an industrial interdisciplinary design project involving design, analysis, fabrication and testing.

**Note**
~~One hour recitation and six hours lab per week.~~

**Requisites**
Prerequisite: ME 535 or NE 612, ME 533, ME 571.

Prerequisite or concurrent: ENGL 415, or instructor approval.

**Typically Offered**
Fall, Spring

**K-State 8**
~~None~~

**To:**

**ME 574 - Interdisciplinary Industrial Design Projects I (**3) Introduction to design theory, project management, team dynamics and socio-economic context of design, etc.; application of design principles, engineering analysis and experimental methods to an industrial interdisciplinary design project involving design, analysis, fabrication and testing. Discussion of career planning, graduate school, ethics, technical/professional societies, and engineering licensing.

**Note**

**Requisites**
Prerequisite: ME 535 or NE 612, ME 533, ME 571.

Prerequisite or concurrent: ENGL 415, or instructor approval.

**Typically Offered**
Fall, Spring

**K-State 8**
Ethical Reasoning and Responsibility

Rationale: Industrial Design projects II has traditionally held the discussion of career planning, graduate school, ethics, technical/professional societies, and engineering licensing, however; this information presented in the student's last semester and is often occurring too late. There also is going to be a restructuring of the class that will allow these topics to seamlessly introduced in the first semester.
MNE would like to remove the note as students are only officially in six hours of "lab" per week. Some of that lab time is used for lecture content.

Since the ethics content is being moved from Industrial Design Projects II to I, the K-State 8 Ethical Reasoning and Responsibility tag should come with it.

Impact: None

Effective: Fall 2017

From:

***ME 575 - Interdisciplinary Industrial Design Projects II***

**Credits:** 3

Continuation of ME 574 with emphasis on in-depth project experience. Also, discussion of career planning, graduate school, ethics, technical/professional societies, and engineering licensing.

**Note**
One hour lecture and five hours lab a week.

**Requisites**
Prerequisite: ME 574 or instructor approval.

**Typically Offered**
Fall, Spring

**UGE course**
No

**K-State 8**
Ethical Reasoning and Responsibility

To:

***ME 575 - Interdisciplinary Industrial Design Projects II***

**Credits:** 3

Continuation of ME 574 with emphasis on in-depth project experience.

**Note**

**Requisites**
Prerequisite: ME 574 or instructor approval.

**Typically Offered**

Fall, Spring

**UGE course**
No

**K-State 8**
None

Rationale: Described in Industrial Design Projects I.

Impact: None

Effective: Spring 2018

## College of Education (4-25-17)

## Non-Expedited
## Undergraduate New Courses
## Curriculum and Instruction

**#1 EDSEC 548. Technology Education Methods for Secondary and Middle Schools.** (3) Fall. This course addressed the principles of teaching applied to technology education instruction in the secondary and middle schools including motivation, organization of subject matter, lesson/unit planning, assessment and reporting, organization and management of the classroom, and methodology and materials of the secondary and middle schools. This course will also address the technology education curriculum, instructional practices for individual learners and learning, and college and career readiness practices for students. Pre-Requisite: EDSEC 376 and Co-Requisite: EDSEC 477, EDSEC 549.

**IMPACT:** Since this is an education course, only the Department of Curriculum and Instruction will be impacted concerning staffing and scheduling the course.

The new teaching field in technology education was jointly prepared by the Department of Engineering Technology in the Kansas State Polytechnic and faculty from the College of Education. Most of the required courses in the new teaching field will be taught through the Kansas State Polytechnic. Any course in the program with an ED prefix will be staffed and scheduled by the College of Education. This program has the full support of Dean Verna Fitzsimmons in the Kansas State Polytechnic and Dean Debbie Mercer in the College of Education as evidenced in their communications in December 2015.

**RATIONALE:** This is a new course which is one of the requirements in a new secondary education teaching field in technology education. This new teaching field is designed to provide more technology education teachers in the state, and there currently is a shortage of those teachers. Many of the required courses in the program currently exist, but this is a new course designed to address teaching methods specifically appropriate for instruction in technology education.

**EFFECTIVE DATE:** Fall 2017

**#2 EDSEC 549. Technology Education Practicum for Secondary and Middle Schools.** (2) Fall. This field-based experience provides the opportunity for students to plan, teach, and evaluate technology education lessons within a placement at the middle or secondary level. This practicum also requires students to incorporate reading methods and apply instructional technology in their instruction. Pre-Requisite: EDSEC 376 and Co-Requisite: EDSEC 477, EDSEC 548.

**IMPACT:** Since this is an education course, only the Department of Curriculum and Instruction will be impacted concerning staffing and scheduling the course.

The new teaching field in technology education was jointly prepared by the Department of Engineering Technology in the Kansas State Polytechnic and faculty from the College of Education. Most of the required courses in the new teaching field will be taught through the Kansas State Polytechnic. Any course in the program with an ED prefix will be staffed and scheduled by the College of Education. This program has the full support of Dean Verna Fitzsimmons in the Kansas State Polytechnic and Dean Debbie Mercer in the College of Education as evidenced in their communications in December 2015.

**RATIONALE:** This is a new course which is one of the requirements in a new secondary education teaching field in technology education. This new teaching field is designed to provide more technology education teachers in the state, and there currently is a shortage of those teachers. Many of the required courses in the program currently exist, but this is a new course providing a field-based opportunity to practice the teaching methods specifically appropriate for instruction in technology education.

**EFFECTIVE DATE:** Fall 2017

## Non-Expedited
## Undergraduate Program Changes
## Curriculum and Instruction

## #1 Secondary Education Program - Bachelor's Degree Requirement Changes for New Teaching Field in Technology Education

| FROM: | TO: |
|---|---|
| Minimum of 126 credit hours required<br>Licensure 6-12 | Minimum of 126 credit hours required<br>Licensure 6-12 |
| **Bachelor's degree requirements** | **Bachelor's degree requirements** |
| **General Education requirements** (33 credit hours minimum) | **General Education requirements** (33 credit hours minimum) |
| **Communications** (8-9 credit hours)<br>(A grade of C or better is required)<br>COMM 105 – Public Speaking IA Credits: (2)<br>Or<br>COMM 106 – Public Speaking I Credits: (3)<br>Or<br>COMM 109 – Public Speaking 1A, Honors Credits: (3)<br>ENGL 100 – Expository Writing 1 Credits: (3)<br>ENGL 200 Expository Writing II Credits: (3) | **Communications** (8-9 credit hours)<br>(A grade of C or better is required)<br>COMM 105 – Public Speaking IA Credits: (2)<br>Or<br>COMM 106 – Public Speaking I Credits: (3)<br>Or<br>COMM 109 – Public Speaking 1A, Honors Credits: (3)<br>ENGL 100 – Expository Writing 1 Credits: (3)<br>ENGL 200 Expository Writing II Credits: (3) |
| **Humanities** (6 credit hours)<br><br>Literature<br>Any department of English literature or Department of Modern Langugages literature course Credits: (3)<br><br>Fine arts appreciation<br>Any nonperformance appreciation class in the Department of Art, Architecture, Modern Languages or School of Music, Theatre and Dance Credits: (3) | **Humanities** (6 credit hours)<br><br>Literature<br>Any department of English literature or Department of Modern Languages literature course Credits: (3)<br><br>Fine arts appreciation<br>Any nonperformance appreciation class in the Department of Art, Architecture, Modern Languages or School of Music, Theatre and Dance Credits: (3) |
| **Social Science** (6 credit hours)<br><br>Elective from Departments of AMETH, ANTH, ECON, GEOG, HIST, POLSC, PSYCH, SOCIO, WOMST Credits: (3)<br><br>Global Issues and Perspective course (tagged as meeting the K-State 8 requirements) from Departments of AMETH, ANTH, ECON, | **Social Science** (6 credit hours)<br><br>Elective from Departments of AMETH, ANTH, ECON, GEOG, HIST, POLSC, PSYCH, SOCIO, WOMST Credits: (3)<br><br>Global Issues and Perspective course (tagged as meeting the K-State 8 requirements) from Departments of AMETH, ANTH, ECON, |

| | |
|---|---|
| GEOG, HIST, POLSC, PSYCH, SOCIO, WOMST Credits**:**(3)<br><br>**Natural Science** (7 credit hours)<br>One lab required.<br><br>**Quantitative sciences** (6 credit hours)<br>MATH 100 – College Algebra Credits (3)<br>(or higher level math course) (Grade of C or better)<br>STAT 325 – Introduction to Statistics Credit (3)<br><br>**Teacher Education Courses** (40 credit hours)<br>A grade of C or higher is required in all Teacher Education courses and practica. A 3.0 or higher grade point average in Teacher Education courses and practica is needed before the Professional Semester.<br><br>**Pre-Professional Component** (8 Credit hours)<br>DED 075 - Orientation to Teacher Education at KSU Credits: (0)<br>EDSEC 200 - Teaching as a Career Credits: (1)<br>EDSEC 230 - Early Field Experience Credits: (1)<br>EDSEC 310 - Foundations of Education Credits: (3)<br>FSHS 110 - Introduction to Human Development Credits: (3)<br><br>**Professional Component** (32 credit hours)<br>Admission to teacher education required.<br><br>**Non-blocked courses** (Must be completed before student teaching)<br>DED 318 - Educational Technology for Teaching and Learning Credits: (1)<br>(Must be completed before Block II)<br>EDSEC 405 - Middle-Level Education Credits: (2)<br>(Not required for K-12 majors in art, modern languages, music, or physical education/health.)<br><br>Students receiving a grade of less than C in a Block 1 course will not be permitted to proceed to Block 2 until a grade of C or higher is recorded (i.e., must retake the Block 1 course first).<br><br>**Block 1** (8 credit hours)<br>Courses must be taken concurrently and prior to Block II.<br>EDCEP 315 - Educational Psychology Credits: (3)<br>EDSEC 376 - Core Teaching Skills: Secondary/Middle Credits: (3)<br>EDSP 323 - Exceptional Students in the Secondary School Credits: (2)<br><br>**Block II** (9 credit hours)<br>Courses must be taken concurrently and prior to Student Teaching.<br>EDCEP 525 - Interpersonal Relations in the Schools Credits: (1)<br>EDSEC 455 - Teaching in a Multicultural Society Credits: (1) | GEOG, HIST, POLSC, PSYCH, SOCIO, WOMST Credits**:**(3)<br><br>**Natural Science** (7 credit hours)<br>One lab required.<br><br>**Quantitative sciences** (6 credit hours)<br>MATH 100 – College Algebra Credits (3)<br>(or higher level math course) (Grade of C or better)<br>STAT 325 – Introduction to Statistics Credit (3)<br><br>**Teacher Education Courses** (40 credit hours)<br>A grade of C or higher is required in all Teacher Education courses and practica. A 3.0 or higher grade point average in Teacher Education courses and practica is needed before the Professional Semester.<br><br>**Pre-Professional Component** (8 Credit hours)<br>DED 075 - Orientation to Teacher Education at KSU Credits: (0)<br>EDSEC 200 - Teaching as a Career Credits: (1)<br>EDSEC 230 - Early Field Experience Credits: (1)<br>EDSEC 310 - Foundations of Education Credits: (3)<br>FSHS 110 - Introduction to Human Development Credits: (3)<br><br>**Professional Component** (32 credit hours)<br>Admission to teacher education required.<br><br>**Non-blocked courses** (Must be completed before student teaching)<br>DED 318 - Educational Technology for Teaching and Learning Credits: (1)<br>(Must be completed before Block II)<br>EDSEC 405 - Middle-Level Education Credits: (2)<br>(Not required for K-12 majors in art, modern languages, music, or physical education/health.)<br><br>Students receiving a grade of less than C in a Block 1 course will not be permitted to proceed to Block 2 until a grade of C or higher is recorded (i.e., must retake the Block 1 course first).<br><br>**Block 1** (8 credit hours)<br>Courses must be taken concurrently and prior to Block II.<br>EDCEP 315 - Educational Psychology Credits: (3)<br>EDSEC 376 - Core Teaching Skills: Secondary/Middle Credits: (3)<br>EDSP 323 - Exceptional Students in the Secondary School Credits: (2)<br><br>**Block II** (9 credit hours)<br>Courses must be taken concurrently and prior to Student Teaching.<br>EDCEP 525 - Interpersonal Relations in the Schools Credits: (1)<br>EDSEC 455 - Teaching in a Multicultural Society Credits: (1) |

| | |
|---|---|
| EDSEC 477 - Content Area Literacies and Diverse Learners Credits: (2)<br><br>Choose one of the following that corresponds to your teaching field:<br><br>EDSEC 530 - Art Methods for Secondary and Middle Schools Credits: (3)<br>EDSEC 532 - Business Methods for Secondary and Middle Schools Credits: (3)<br>EDSEC 534 - Family and Consumer Science Methods for Secondary and Middle Schools Credits: (3)<br>EDSEC 536 - Language Arts Methods for Secondary and Middle Schools Credits: (3)<br>EDSEC 538 - Mathematics Methods for Secondary and Middle Schools Credits: (3)<br>EDSEC 540 - Modern Language Methods for Secondary and Middle Schools Credits: (3)<br>EDSEC 542 - Science Methods for Secondary and Middle Schools Credits: (3)<br>EDSEC 544 - Social Studies Methods for Secondary and Middle Schools Credits: (3)<br>EDSEC 546 – Physical Education/Health Methods for Secondary and Middle Schools Credits: (3)<br><br>Choose one of the following that corresponds to your teaching field:<br>EDSEC 531 - Art Methods Practicum Credits: (2)<br>EDSEC 533 - Business Methods Practicum Credits: (2)<br>EDSEC 535 - Family and Consumer Science Methods Practicum Credits: (2)<br>EDSEC 537 - Language Arts Methods Practicum Credits: (2)<br>EDSEC 539 - Mathematics Methods Practicum Credits: (2)<br>EDSEC 541 - Modern Language Methods Practicum Credits: (2)<br>EDSEC 543 - Science Methods Practicum Credits: (2)<br>EDSEC 545 - Social Studies Methods Practicum Credits: (2)<br>EDSEC 547 – Physical Education/Health Practicum for Secondary and Middle Schools Credits: (2)<br><br>**Professional Semester** (12 credit hours)<br>A 3.0 or higher grade point average in Teacher Education courses and practica is needed before the Professional Semester<br><br>EDSEC 586 - Teaching Internship in Secondary Schools Credits: (Variable 1-12)<br><br>Internship requirements may vary by teaching field. The following courses may also be used to complete the 12 credit minimum.<br>EDSEC 582 – Teaching Internship in Music (variable 6- 12) | EDSEC 477 - Content Area Literacies and Diverse Learners Credits: (2)<br><br>Choose one of the following that corresponds to your teaching field:<br><br>EDSEC 530 - Art Methods for Secondary and Middle Schools Credits: (3)<br>EDSEC 532 - Business Methods for Secondary and Middle Schools Credits: (3)<br>EDSEC 534 - Family and Consumer Science Methods for Secondary and Middle Schools Credits: (3)<br>EDSEC 536 - Language Arts Methods for Secondary and Middle Schools Credits: (3)<br>EDSEC 538 - Mathematics Methods for Secondary and Middle Schools Credits: (3)<br>EDSEC 540 - Modern Language Methods for Secondary and Middle Schools Credits: (3)<br>EDSEC 542 - Science Methods for Secondary and Middle Schools Credits: (3)<br>EDSEC 544 - Social Studies Methods for Secondary and Middle Schools Credits: (3)<br>EDSEC 546 – Physical Education/Health Methods for Secondary and Middle Schools Credits: (3)<br>EDSEC 548 – Technology Education Methods for Secondary and Middle Schools Credits: (3)<br><br>Choose one of the following that corresponds to your teaching field:<br>EDSEC 531 - Art Methods Practicum Credits: (2)<br>EDSEC 533 - Business Methods Practicum Credits: (2)<br>EDSEC 535 - Family and Consumer Science Methods Practicum Credits: (2)<br>EDSEC 537 - Language Arts Methods Practicum Credits: (2)<br>EDSEC 539 - Mathematics Methods Practicum Credits: (2)<br>EDSEC 541 - Modern Language Methods Practicum Credits: (2)<br>EDSEC 543 - Science Methods Practicum Credits: (2)<br>EDSEC 545 - Social Studies Methods Practicum Credits: (2)<br>EDSEC 547 – Physical Education/Health Practicum for Secondary and Middle Schools Credits: (2)<br>EDSEC 549 – Technology Education Practicum for Secondary and Middle Schools Credits: (2)<br><br>**Professional Semester** (12 credit hours)<br>A 3.0 or higher grade point average in Teacher Education courses and practica is needed before the Professional Semester<br><br>EDSEC 586 - Teaching Internship in Secondary Schools Credits: (Variable 1-12)<br><br>Internship requirements may vary by teaching field. The following courses may also be used to complete the 12 credit minimum.<br>EDSEC 582 – Teaching Internship in Music (variable 6-12) |

| | |
|---|---|
| EDEL 585 – Teaching Internship in Elementary Schools (variable 1- 15)<br><br>**Teaching Field** (One of the following areas must be selected)<br><br>Art (47 credits)<br>Biology (68-69 credits)<br>Business (55 credits)<br>Chemistry (58 credits)<br>Earth and Space Science (64 credits)<br>English (39 credits)<br>English and Journalism (48 credits)<br>Journalism (33 credits)<br>Mathematics (40 credits)<br>Modern Languages (34-36 credits)<br>Physical Education and Health (53 credits)<br>Physics (65 credits)<br>Speech and Theatre (42 credits)<br>Social Studies (64 credits)<br><br>Total hours required for graduation (126) | EDEL 585 – Teaching Internship in Elementary Schools (variable 1- 15)<br><br>**Teaching Field** (One of the following areas must be selected)<br><br>Art (47 credits)<br>Biology (68-69 credits)<br>Business (55 credits)<br>Chemistry (58 credits)<br>Earth and Space Science (64 credits)<br>English (39 credits)<br>English and Journalism (48 credits)<br>Journalism (33 credits)<br>Mathematics (40 credits)<br>Modern Languages (34-36 credits)<br>Physical Education and Health (53 credits)<br>Physics (65 credits)<br>Speech and Theatre (42 credits)<br>Social Studies (64 credits)<br>Technology Education (67 credits)<br><br>Total hours required for graduation (126) |

**IMPACT:** This proposal impacts the Department of Engineering Technology in the Kansas State Polytechnic since most of the courses in the proposed teaching field are offered through that department. The preparation of this program has the full support of Dean Verna Fitzsimmons in the Kansas State Polytechnic and Dean Debbie Mercer in the College of Education as evidenced in their communications in December 2015.

With the support of Dean Verna Fitzsimmons, several faculty members of that department participated in the creation of this new teaching field during spring 2016, and they are prepared to offer the required courses in the program. Assistant Dean Alysia Starkey led the discussions as the program was developed. The process included at least six member of the Department of Engineering Technology. Two members of the College of Education also participated in the program's development—Dr. Sally Yahnke and Assistant Dean Paul Burden.

**RATIONALE:** This is a proposal to add one more teaching field as a choice in the secondary education program. The new teaching field is in the area of Technology Education. According to the Kansas State Department of Education, there is a definite need for more technology education teachers at the secondary level, and the College of Education is seeking to fulfill this need with this new teaching field in the secondary education program.

**EFFECTIVE DATE:** Fall 2017

## #2 Secondary Education Program: Technology Education - New Teaching Field

| **FROM:** | **TO:** |
|---|---|
| This is a new teaching field. | **Technology Education Licensure Program**<br>(67 credit hours) |

| | |
|---|---|
| | CMST 103 Computing Principles (3)<br>CMST 250 Hardware and Network Fundamentals (3)<br>CMST 252 System and Software Fundamentals (3)<br><br>ECET 100 Basic Electronics (4)<br>ECET 250 Digital Logic (4)<br>ECET 304 Electric Power and Devices (3)<br><br>MET 111 Technical Graphics (3)<br>MET 121 Manufacturing Methods (3)<br>MET 211 Statics (3)<br>MET 225 Additive Manufacturing (3)<br>MET 230 Automated Manufacturing Systems I (3)<br>MET 231 Physical Materials and Metallurgy (3)<br>MET 252 Fluid Power Technology (3)<br>MET 264 Machine Design Technology I (4)<br><br>ETA 292 Problems in Engineering Technology (3)<br>ETB 492 Advanced Problems in Engineering Technology (3) (Special Topics—Energy Systems and Construction Technology)<br><br>MATH 150 Plane Trigonometry (3)<br>CHM 110 General Chemistry (3)<br>PHYS 113 General Physics I (4)<br><br>EDSEC 620 Principles and Philosophy of Career and Technical Education (3)<br>EDSEC 621 Program Planning in Career and Technical Education (3)<br>Total: 67 credits |

**IMPACT:** This proposal impacts the Department of Engineering Technology in the Kansas State Polytechnic since most of the courses in the proposed teaching field are offered through that department. The preparation of this program has the full support of Dean Verna Fitzsimmons in the Kansas State Polytechnic and Dean Debbie Mercer in the College of Education as evidenced in their communications in December 2015.

With the support of Dean Verna Fitzsimmons, several faculty members of that department participated in the creation of this new teaching field during spring 2016, and they are prepared to offer the required courses in the program. Assistant Dean Alysia Starkey led the discussions as the program was developed. The process included at least six member of the Department of Engineering Technology. Two members of the College of Education also participated in the program's development—Dr. Sally Yahnke and Assistant Dean Paul Burden.

**RATIONALE:** This is a proposal to add one more teaching field as a choice in the secondary education program. The new teaching field is in the area of Technology Education. According to the Kansas State Department of Education, there is a definite need for more technology education teachers at the secondary level, and the College of Education is seeking to fulfill this need with this new teaching field in the secondary education program.

**EFFECTIVE DATE:** Fall 2017