

## **Attachment 2**

### **Academic Affairs**

#### **Discussion Agenda Supplemental Information - Curriculum Changes**

#### **Faculty Senate Review- November 12, 2019 Meeting**

<https://kstate.curriculog.com/agenda:856/form>

### **Agriculture**

#### **Agricultural Technology Management (B.S.)**

<https://kstate.curriculog.com/proposal:3914/form>

##### **Rationale: What is changing?**

This proposal consists of a core curriculum comprised of 67 credit hours of biological and physical science, business, communication, management, and technology courses, and five curriculum options of agribusiness management, animal and human health product manufacturing, precision agriculture, production agriculture systems, and water management. Each option consists of 53 credit hours of focused course work which includes 26 required hours in ATM/BAE. A minimum of 11 credit hours of ATM/BAE courses are required in the core.

##### **Rationale: Why is it changing?**

The Agricultural Technology Management (ATM) curriculum administered by the Department of Biological & Agricultural Engineering (BAE) needs redesigned to stay on the leading edge of industry demands for graduates and to parallel the BAE faculty composition. The 2018 annual review of the ATM program by the KSU Assessment Office supported the BAE faculty's decision that a curriculum redesign could benefit the enrollment and image of this degree program. Extensive input about the design and content of the curriculum was obtained from alumni and the BAE Industrial Advisory Council. BAE faculty believe this new curriculum will continue to prepare graduates for rewarding careers needed by agricultural businesses/employers and enhance exposure of the curriculum to future students through direct and indirect marketing strategies.

The proposed options will provide students more flexibility and also diversity among focus areas to expand industries for which students can apply their knowledge of agriculture technology management. It is also designed to attract new students to Kansas State by offering options more relevant to current technology career demands while maintaining the knowledge base of our current ATM program.

**Impact:** (see attachments in Curriculog) Department heads from industrial and manufacturing systems engineering, mechanical and nuclear engineering, biochemistry, biology, finance, marketing, and geography were contacted by email regarding changes in required/elective courses (responses in attached ATM program impacts files).

Agricultural technology management emphasizes the application and integration of agricultural/biological sciences, agricultural engineered systems, and business to manage human and natural resources in the production and processing of ~~food~~ and agricultural products. It prepares ~~men and women~~ for technical management positions in ~~food~~ and agricultural industries that require an understanding of both technology and management. Agricultural technology management graduates are typically employed in technical sales, service, and management in agricultural production operations, agribusiness and ~~food and feed~~ processing industries, government agencies, and companies.

Courses are designed to apply physical science concepts and problem solving to ~~food and agricultural~~ systems. Supporting courses provide a foundation of mathematics, chemistry, business, and computer and communication skills. Technical electives are available to develop a degree program that meets personal career objectives.

The curriculum is administered by the Department of Biological and Agricultural Engineering and leads to the bachelor of science degree in agriculture with a major in Agricultural Technology Management.

**Engineering equipment fee**

Students enrolling in ATM courses will be assessed the engineering fee plus any university wide technology fee.

**Bachelor’s degree requirements**

**General Requirements (38 credit hours)**

Communication Electives **Credits: 6** (~~from List 1~~)  
 Humanities and/or Social Sciences electives **Credits: 6** (~~from List 2~~)

- BIOL 198 - Principles of Biology Credits: 4
- CHM 210 - Chemistry I **Credits: 4**
- COMM 105 - Public Speaking IA **Credits: 2**
- ENGL 100 - Expository Writing I **Credits: 3**
- ENGL 200 - Expository Writing II **Credits: 3**
- MATH 205 - General Calculus and Linear Algebra **Credits: 3**
- PHYS 113 - General Physics I **Credits: 4**

**ATM / BAE courses (34 credit hours)**

Agricultural technology management emphasizes the application and integration of agricultural/biological sciences, agricultural engineered systems, and business to manage human and natural resources in the production and processing of biological products. It prepares students for technical management positions in biotechnology and agricultural industries that require an understanding of both technology and management. Agricultural technology management graduates are typically employed in technical sales, service, and management in agricultural production operations, agribusiness and processing industries, government agencies, and companies.

Courses are designed to apply physical science concepts and problem solving to biological systems. Supporting courses provide a foundation of mathematics, chemistry, business, and computer and communication skills. Technical electives are available to develop a degree program that meets personal career objectives.

The curriculum is administered by the Department of Biological and Agricultural Engineering and leads to the bachelor of science degree in agriculture with a major in Agricultural Technology Management.

**Engineering equipment fee**

Students enrolling in ATM courses will be assessed the engineering fee plus any university wide technology fee.

**Bachelor’s degree requirements**

**General Core Requirements (67 credit hours)**

Communication Electives **Credits: 3**  
 (see departmental list)

Humanities and/or Social Sciences electives **Credits: 6**  
 (see departmental list)

- BIOL 198 - Principles of Biology **Credits: 4**
- CHM 210 - Chemistry I **Credits: 4**
- COMM 105 - Public Speaking IA **Credits: 2**
- ENGL 100 - Expository Writing I **Credits: 3**
- ENGL 200 - Expository Writing II **Credits: 3**
- MATH 205 - General Calculus and Linear Algebra **Credits: 3**
- PHYS 113 - General Physics I **Credits: 4**

**ATM / BAE Core courses (11 credit hours)**

ATM 101 – Introduction to Biological and Agricultural

<p>ATM 101 - Introduction to Biological and Agricultural Engineering and Technology <b>Credits: 1</b>  ATM 160 - Engineered Systems and Technology in Agriculture <b>Credits: 3</b>  ATM 450 - Sensors and Controls for Agricultural and Biological Systems <b>Credits: 3</b>  <del>ATM 545 - Processing and Storage of Grains Credits: 3</del>  <del>ATM 558 - Hydrology and Soil Erosion Management Credits: 3</del>  <del>BAE 350 - Off Road Machinery Systems Credits: 2</del>  <del>BAE 351 - Machinery Systems Lab Credits: 1</del>  Choose a minimum of 15 hours from List 3</p> <hr/> <p><b>Business and Management Courses (18 credit hours)</b></p> <hr/> <p>ACCTG 231 - Accounting for Business Operations <b>Credits: 3</b>  ECON 110 - Principles of Macroeconomics <b>Credits: 3</b></p> <hr/> <p><b>Statistics Requirement (3 credit hours)</b></p> <hr/> <p>Choose one of the following courses:</p> <p>STAT 325 - Introduction to Statistics <b>Credits: 3</b>  STAT 340 - Biometrics I <b>Credits: 3</b>  STAT 350 - Business and Economic Statistics I <b>Credits: 3</b></p> <hr/> <p><b>Management Requirement (3 credit hours)</b></p> <hr/> <p>Choose one of the following courses:</p> <p><del>MANGT 390 - Business Law I Credits: 3</del>  MANGT 420 - Principles of Management <b>Credits: 3</b>  MANGT 421 - Introduction to Operations Management <b>Credits: 3</b></p> <hr/> <p><b>Business and Management Elective (6 credit hours)</b></p> <hr/> <p>(choose a minimum of 6 hrs from List 5)</p> <hr/> <p><del><b>Technology Courses (11 credit hours)</b></del></p> <hr/> <p><del>IMSE 250 - Introduction to Manufacturing Processes and Systems <b>Credits: 2</b></del>  <del>IMSE 251 - Manufacturing Processes Laboratory <b>Credits: 1</b></del>  ME 212 - Engineering Graphics <b>Credits: 2</b></p>	<p>Engineering and Technology <b>Credits: 1</b>  ATM 160 – Engineered Systems and Technology in Agriculture <b>Credits: 3</b>  ATM 450 – Sensors and Controls for Agricultural and Biological Systems <b>Credits: 3</b>  <u>ATM 331 – Professional Practice for Agricultural Technology Managers <b>Credits: 1</b></u></p> <p><u>Choose one of the following:</u>  <u>BAE 582 – Natural Resources/Environmental Sciences Project <b>Credits: 3</b></u>  <u>ATM 536 – Agricultural Technology Management Capstone Project <b>Credits: 3</b></u></p> <hr/> <p><b>Business and Management Core Courses (15 credit hours)</b></p> <hr/> <p>ACCTG 231 - Accounting for Business Operations <b>Credits: 3</b>  ECON 110 - Principles of Macroeconomics <b>Credits: 3</b></p> <p>Choose one of the following courses:  <u>AGEC 318 Food and Agribusiness Management <b>Credits: 3</b></u>  MANGT 420 - Principles of Management <b>Credits: 3</b>  MANGT 421 - Introduction to Operations Management <b>Credits: 3</b>  Choose a minimum of 6 hours from <u>Agribusiness and Management Electives (see departmental list)</u></p> <hr/> <p><b>Statistics Core Requirement (3 credit hours)</b></p> <hr/> <p>Choose one of the following courses:</p> <p>STAT 325 - Introduction to Statistics <b>Credits: 3</b>  STAT 340 - Biometrics I <b>Credits: 3</b>  STAT 350 - Business and Economic Statistics I <b>Credits: 3</b></p> <hr/> <p><b>Graphics Communication Core Courses (3 credit hours)</b></p> <hr/> <p><u>Choose from the following:</u>  ME 212 - Engineering Graphics <b>Credits: 2</b> <b>AND</b>  <u>BAE 250 – Solid Modeling <b>Credits: 1</b></u>  <b>OR</b>  <u>GEOG 302 – Cartography and Thematic Mapping <b>Credits: 3</b></u>  <b>OR</b>  <u>GRSC 210 – CAD Flow Sheets for Grain Processing <b>Credits: 3</b></u></p> <hr/> <p><b>Unrestricted electives (3 credit hours)</b></p>
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Technology Electives **Credits:** 6 (Choose from List 3 and 4)

**Agricultural science courses (10 credit hours)**

AGRON 305 Soils **Credits:** 4

Agricultural Science Electives **Credits:** 6 (minimum of 6 credit hrs from List 6, 7 or 8; all 6 credit hrs must be College of Agriculture courses)

**Restricted electives (12 credit hours)**

Choose a minimum of 12 credit hours all from the same list (6 of the 12 credit hours must be 400 level or higher; may use Lists 4, 5, 6, 7, or 8)

**Lists of recommended courses**

**List 1: Communication Electives**

AGCOM 400 Agricultural Business Communications **Credits:** 3

AGCOM 410 Agricultural Student Magazine **Credits:** 1-5

AGED 706 Principles of Teaching Adults in Extension **Credits:** 3

COMM 311 Business and Professional Speaking **Credits:** 3

COMM 321 Public Speaking II **Credits:** 3

COMM 322 Interpersonal Communication **Credits:** 3

COMM 325 Argumentation and Debate **Credits:** 3

COMM 326 Small Group Discussion Methods **Credits:** 3

COMM 726 Seminar in Persuasion **Credits:** 3

ENGL 300 Expository Writing III **Credits:** 3

ENGL 516 Written Communication for the Sciences **Credits:** 3

MC 200 News Reporting and Writing Across Platforms **Credits:** 3

MKTG 542 Fundamentals of Professional Selling **Credits:** 3

**List 2: Humanities and/or Social Science Electives**

American Ethnic Studies any course

Architecture, Planning and Design any course in history or appreciation of architecture or environmental design

Anthropology any course

Art course in appreciation and theory

Dance any course

Economics above ECON 110 Principles of Macroeconomics

English any except courses in composition

Gender, Women, and Sexuality Studies any course

**SUBPLAN OPTION REQUIREMENTS – Students must choose one option:**

**Agribusiness Management Option Requirements (53 credit hours)**

Dept	#	Class Title	Credit Hours
MKTG	400	Introduction to Marketing (OR)	3
AGEC	515	Food and Agribusiness Marketing	
ACCTG	241	Accounting for Investment & Financing	3
ATM	511	Agricultural Building Systems	3
ATM	558	Hydrology and Soil Management	3
BAE	350	Off Road Machinery Systems	2
BAE	351	Machinery Systems Laboratory	1
FINAN	450	Principles of Finance (OR)	3
AGEC	513	Agricultural Finance	
		ATM/BAE elective credits	17
		Technical elective credits	18

**Animal & Human Health Product Manufacturing Option Requirements (53 credit hours)**

Dept	#	Class Title	Credit Hours
ATM	511	Agricultural Building Systems	3
ATM	545	Processing and Storage of Grains	3
BAE	345	Properties of Biological Materials	2
BAE	346	Properties of Biological Materials Laboratory	1
BIOCH	265	Introductory Organic and Biochemistry (OR)	5
CHEM	350	General Organic Chemistry (AND)	
CHEM	351	General Organic Chemistry Laboratory	
BIOL	455	General Microbiology	4
GRSC	150	Principles of Milling (OR)	2
IMSE	250	Introduction to Manufacturing Processes and Systems	
ASI	210	Introduction to Animal Biotechnology (OR)	3
FDSCI	305	Fundamentals of Food Processing	
		ATM/BAE elective credits	17
		Technical elective credits	13

**Precision Agriculture Option Requirements (53 credit hours)**

Dept	#	Class Title	Credit Hours
BAE	350	Off Road Machinery Systems	2
BAE	351	Machinery Systems Laboratory	1
ATM	558	Hydrology & Soil Erosion Management	3

~~Geography any except GEOG 221 Introductory Physical Geography~~  
~~History any course~~  
~~Family Studies and Human Services any course~~  
~~Modern Languages any course~~  
~~Music any course in theory or appreciation of music~~  
~~Philosophy any course~~  
~~Political Science any course~~  
~~Psychology any course~~  
~~Sociology, Anthropology, and Social Work any course~~  
~~Theatre any course~~

**List 3: ATM Electives**

~~ATM 250 Chemical Application Systems **Credits: 2**~~  
~~ATM 251 Chemical Application Systems Laboratory **Credits: 1**~~  
~~ATM 455 Engines and Power Transfer **Credits: 3**~~  
~~ATM 460 Internship in Agricultural Technology Management **Credits: 1-3**~~  
~~ATM 511 Agricultural Building Systems **Credits: 3**~~  
~~ATM 515 Problems in Agricultural Technology Management **Credits: 1-18**~~  
~~ATM 550 Precision Agriculture Technologies **Credits: 3**~~  
~~ATM 653 Water Management and Irrigation Systems **Credits: 2**~~  
~~ATM 654 Water Management and Irrigation Systems Lab **Credits: 1**~~  
~~ATM 661 Watershed Assessment and Management **Credits: 3**~~

**List 4: Technology Electives**

~~AGRON 655 Site Specific Agriculture **Credits: 3**~~  
~~GENAG 582 Natural Resources/Environmental Science Project (NRES) **Credits: 3**~~  
~~GEOG 508 Geographic Information Systems I **Credits: 4**~~  
~~GRSC 540 Process Calculations in Food Systems **Credits: 3**~~  
~~GRSC 541 Process Calculations in Food Systems Laboratory **Credits: 1**~~  
~~GRSC 560 Electricity and Industrial Power Distribution **Credits: 3**~~  
~~GRSC 555 Cereal Food Plant Design **Credits: 3**~~  
~~Any Other College of Engineering Course~~

**List 5: Agribusiness and Management Electives**

~~Any Agricultural Economics Course~~

- ~~ACCTG 241 Accounting for Investing and Financing **Credits: 3**~~
- ~~ECON 520 Intermediate Microeconomics **Credits: 3**~~
- ~~ECON 530 Money and Banking **Credits: 3**~~

<del>ATM 653</del>	<del>Water Management &amp; Irrigation Systems</del>	<del>2</del>
<del>ATM 550</del>	<del>Precision Agriculture Technologies</del>	<del>3</del>
<del>ATM 654</del>	<del>Water Management &amp; Irrigation Systems Laboratory</del>	<del>1</del>
<del>GEOG 508</del>	<del>Geographic Information Systems I</del>	<del>4</del>
<del>AGRON 305</del>	<del>Soils</del>	<del>4</del>
<del>AGRON 202</del>	<del>Introduction to Precision Ag Software</del>	<del>3</del>
<del>AGRON 655</del>	<del>Site Specific Agriculture</del>	<del>3</del>
	<del>ATM/BAE elective credits</del>	<del>14</del>
	<del>Technical elective credits</del>	<del>13</del>

**Production Agriculture Option Requirements (53 credit hours)**

<del>Dept #</del>	<del>Class Title</del>	<del>Credit Hours</del>
<del>ATM 455</del>	<del>Engines &amp; Power Transfer</del>	<del>3</del>
<del>ATM 511</del>	<del>Agricultural Building Systems</del>	<del>3</del>
<del>ATM 558</del>	<del>Hydrology and Soil Management</del>	<del>3</del>
<del>BAE 350</del>	<del>Off Road Machinery Systems</del>	<del>2</del>
<del>BAE 351</del>	<del>Machinery Systems Laboratory</del>	<del>1</del>
<del>IMSE 250</del>	<del>Introduction to Manufacturing Processes and Systems</del>	<del>2</del>
<del>IMSE 251</del>	<del>Manufacturing Processes Laboratory</del>	<del>1</del>
	<del>ATM/BAE elective credits</del>	<del>14</del>
	<del>Technical elective credits</del>	<del>24</del>

**Water Management Option Requirements (53 credit hours)**

<del>Dept #</del>	<del>Class Title</del>	<del>Credit Hours</del>
<del>AGRON 305</del>	<del>Soils</del>	<del>4</del>
<del>ATM 558</del>	<del>Hydrology and Soil Erosion Management</del>	<del>3</del>
<del>ATM 653</del>	<del>Water Management and Irrigation Systems</del>	<del>2</del>
<del>ATM 654</del>	<del>Water Management and Irrigation Systems Lab</del>	<del>1</del>
<del>ATM 661</del>	<del>Watershed Assessment and Management</del>	<del>3</del>
<del>GEOG 508</del>	<del>Geographic Information Systems I</del>	<del>4</del>
	<del>ATM/BAE elective credits</del>	<del>17</del>
	<del>Technical elective credits</del>	<del>19</del>

**Total credit hours required for graduation: (minimum of 120).**

**Note: Any course applied to a core or option requirement cannot be applied as an elective.**

Must satisfy K-State 8 general education requirements.

- ECON 681—International Trade **Credits: 3**
- FINAN 450—Principles of Finance **Credits: 3**
- GRSC 530—Management Applications in the Grain Processing Industries **Credits: 3**
- IMSE 501—Industrial Management **Credits: 3**
- MANGT 390—Business Law I **Credits: 3**
- MANGT 421—Introduction to Operations Management **Credits: 3**
- MKTG 400—Introduction to Marketing **Credits: 3**
- MKTG 450—Consumer Behavior **Credits: 3**

**List 6: Biological, Natural Resource & Environmental Electives**

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- AGRON 220—Crop Science **Credits: 4**
  - AGRON 330—Weed Science **Credits: 3**
  - AGRON 335—Environmental Quality **Credits: 3**
  - AGRON 360—Crop Growth and Development **Credits: 3**
  - AGRON 375—Soil Fertility **Credits: 3**
  - AGRON 385—Soil Fertility Laboratory **Credits: 2**
  - AGRON 501—Range Management **Credits: 3**
  - AGRON 515—Soil Genesis and Classification **Credits: 3**
  - AGRON 550—Forage Management and Utilization **Credits: 3**
  - AGRON 630—Crop Improvement and Biotechnology **Credits: 3**
  - AGRON 635—Soil and Water Conservation **Credits: 3**
  - AGRON 655—Site Specific Agriculture **Credits: 3**
  - ASI 500—Genetics **Credits: 3**
  - BIOL 303—Ecology of Environmental Problems **Credits: 3**
  - BIOL 330—Public Health Biology **Credits: 3**
  - BIOL 455—General Microbiology **Credits: 4**
  - BIOL 500—Plant Physiology **Credits: 3**
  - BIOL 513—Physiological Adaptations of Animals **Credits: 4**
  - BIOL 529—Ecology **Credits: 3**
  - BIOL 612—Freshwater Ecology **Credits: 4**
  - CHM 315—Environmental Science: A Chemistry Perspective **Credits: 3**
  - ENTOM 300—Economic Entomology **Credits: 3**
  - ENTOM 301—Insects and People **Credits: 3**
  - GENAG 582—Natural Resources/Environmental Science Project (NRES) **Credits: 3**

- ~~GENAG 670 Introduction to Agricultural Resources and Environmental Management **Credits: 2**~~
- ~~GEOG 221 Introductory Physical Geography **Credits: 4**~~
- ~~GEOG 508 Geographic Information Systems I **Credits: 4**~~
- ~~GEOG 305 Earth Resources **Credits: 3**~~
- ~~GEOG 506 Environmental Studies **Credits: 3**~~
- ~~PLPTH 500 Principles of Plant Pathology **Credits: 3**~~
- ~~Horticulture and Natural Resources courses with consent of advisor~~

**List 7: Animal Sciences Electives**

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- ~~AGRON 501 Range Management **Credits: 3**~~
  - ~~AGRON 550 Forage Management and Utilization **Credits: 3**~~
  - ~~AGRON 551 Forage Management and Utilization Laboratory **Credits: 1**~~
  - ~~ASI 102 Principles of Animal Science **Credits: 3**~~
  - ~~ASI 315 Livestock and Meat Evaluation **Credits: 3**~~
  - ~~ASI 318 Fundamentals of Nutrition **Credits: 3**~~
  - ~~ASI 320 Principles of Feeding **Credits: 3**~~
  - ~~ASI 400 Farm Animal Reproduction **Credits: 3**~~
  - ~~ASI 422 Livestock Sales Management **Credits: 0-1**~~
  - ~~ASI 450 Principles of Livestock Selection **Credits: 2**~~
  - ~~ASI 470 Form and Function in Livestock **Credits: 2**~~
  - ~~ASI 510 Animal Breeding Principles **Credits: 3**~~
  - ~~ASI 512 Bovine Reproductive Technologies **Credits: 2**~~
  - ~~ASI 515 Beef Science **Credits: 3**~~
  - ~~ASI 521 Horse Science **Credits: 3**~~
  - ~~ASI 524 Sheep and Meat Goat Science **Credits: 3**~~
  - ~~ASI 533 Anatomy and Physiology **Credits: 4**~~
  - ~~ASI 535 Swine Science **Credits: 3**~~
  - ~~ASI 620 Beef Systems Management **Credits: 2**~~
  - ~~ASI 655 Behavior of Domestic Animals **Credits: 3**~~
  - ~~BIOCH 265 Introductory Organic and Biochemistry **Credits: 5**~~
  - ~~ENTOM 305 Animal Health Entomology **Credits: 2**~~

- ~~ENTOM 306~~ ~~Animal Health Entomology Laboratory~~ **Credits: 1**

**List 8: Processing Technology Electives**

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- ~~ASI 350~~ ~~Meat Science~~ **Credits: 3**
- ~~ASI 361~~ ~~Meat Animal Processing~~ **Credits: 2**
- ~~ASI 370~~ ~~Principles of Meat Evaluation~~ **Credits: 2**
- ~~ASI 405~~ ~~Fundamentals of Milk Processing~~ **Credits: 3**
- ~~ASI 608~~ ~~Dairy Foods Processing & Technology~~ **Credits: 3**
- ~~ASI 610~~ ~~Processed Meat Operations~~ **Credits: 2**
- ~~FDSCI 302~~ ~~Introduction to Food Science~~ **Credits: 3**
- ~~FDSCI 305~~ ~~Fundamentals of Food Processing~~ **Credits: 3**
- ~~FDSCI 430~~ ~~Food Products Evaluation~~ **Credits: 3**
- ~~FDSCI 690~~ ~~Principles of HACCP and HARPC~~ **Credits: 3**
- ~~FDSCI 694~~ ~~Food Plant Management~~ **Credits: 3**
- ~~FDSCI 695~~ ~~Quality Assurance of Food Products~~ **Credits: 3**
- ~~GRSC 150~~ ~~Principles of Milling~~ **Credits: 2**
- ~~GRSC 500~~ ~~Milling Science I~~ **Credits: 2**
- ~~GRSC 510~~ ~~Feed Technology I~~ **Credits: 3**
- ~~GRSC 540~~ ~~Process Calculations in Food Systems~~ **Credits: 3**
- ~~GRSC 541~~ ~~Process Calculations in Food Systems Laboratory~~ **Credits: 1**
- ~~GRSC 602~~ ~~Cereal Science~~ **Credits: 3**
- ~~GRSC 560~~ ~~Electricity and Industrial Power Distribution~~ **Credits: 3**
- ~~GRSC 620~~ ~~Extrusion Processing in the Food and Feed Industries~~ **Credits: 4**
- ~~GRSC 530~~ ~~Management Applications in the Grain Processing Industries~~ **Credits: 3**
- ~~GRSC 651~~ ~~Food and Feed Product Protection~~ **Credits: 4**
- ~~GRSC 555~~ ~~Cereal Food Plant Design~~ **Credits: 3**

**Total credit hours required for graduation:  
(minimum of 120).**

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**Note**

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Must satisfy K-State 8 general education requirements.



## **ATM Electives list for use by unit:**

### **Agribusiness and Management Electives**

ACCTG	241	Accounting for Investment & Financing
AGEC		Any Course
ECON	120	Microeconomics
ECON	520	Intermediate Macroeconomics
ECON	530	Money and Banking
ECON	681	International Economics
FDSCI	694	Food Plant Management
FINAN	450	Principles of Finance
GRSC	530	Mgmt Apps in the Grain Processing Industries
IMSE	501	Industrial Management
MANGT	390	Business Law I
MANGT	420	Management Concepts
MANGT	421	Introduction to Operations Management
MKTG	400	Introduction to Marketing
MKTG	542	Fundamentals of Professional Selling

### **ATM/BAE Electives**

ATM	Any Class 200 and above that is not already required in core or option
BAE	Any Class 300 and above that is not already required in core or option

### **Communications Electives**

AGCOM	Any course 300 and above
COMM	Any course 300 and above
ENGL	510, 516

### **Humanities and Social Science Electives**

American Ethnic Studies	any course
Architecture, Planning and Design	any course in history or appreciation of architecture or environmental design
Anthropology	any course
Art	course in appreciation and theory
Dance	any course
Economics	above ECON 110
English	any except courses in composition
Gender, Women, and Sexuality Studies	any course
Geography	any except GEOG 221
History	any course
Family Studies and Human Services	any course
Modern Languages	any course
Music	any course in theory or appreciation of music
Philosophy	any course

Political Science–any course  
Psychology–any course  
Sociology, Anthropology, and Social Work–any course  
Theatre–any course

### **Technical Electives - Summary by Department**

AGEC	Any course 200 and above
AGED	706
AGRON	AGRON 202, 220 AND Any Class 300 and above
ARE	ARE 310, 311
ASI	ASI 102 AND Any Class 300 and above
ATM	Any Class 200 and above that is not already required in core or option
BAE	Any Class 300 and above that is not already required in core or option
BIOCH	BIOCH 265, 266, 521
BIOL	Any Class 300 and above
BME	BME 200, 430
CHM	CHM 230 AND Any Class 300 and above
CHE	Any Class 300 and above
CIS	CIS 115, 125, 200, 209, 225, 734
CNS	CNS 200, 321
ECON	Any Course 300 and above
ENTOM	Any Class 300 and above
FDSCI	Any Class 300 and above
FINAN	Any Class 300 and above
GENAG	GENAG 582, 670, 711, 712, 721
GEOG	Any Class 300 and above
GEOL	Any Class 300 and above
GRSC	GRSC 150, 151 AND Any Class 300 and above
HORT	HORT 210 AND Any Class 300 and above
IMSE	IMSE 250, 251 AND Any Class 300 and above
LEAD	Any Class 200 and above
MANGT	Any Class 400 and above
ME	ME 390, 400
MKTG	Any Class 400 and above
PLPTH	Any Class 300 and above
UAS	UAS 270, 373, 463

# Architecture, Planning and Design

## Master of Architecture

Description: Eliminate 1 credit hour Unrestricted Elective (7th semester) from curriculum.

Rationale: Elimination of the 1 credit hour Unrestricted Elective was approved by the faculty 4/24/18 for the purpose of adding the 1 credit to ENVD 204. These decisions have were approved by the faculty, however the change to the curriculum guide was overlooked. The purpose of this proposal is to correct this error and return the total credit hours for the degree to 170.

Impact Statement: N/A

FROM: (Current list of courses for the curriculum, curriculum description, and admission criteria. Be sure to use current catalog information)	TO: To: (Proposed list of courses for the curriculum, curriculum description, and admission criteria.)
<b>FIRST SEMESTER</b> ENVD 201 Environmental Design Studio 1      4 ENVD 203 Survey of Design Professions      1 ENVD 204 Studio Seminar      1 ENVD 250 History of Designed Environment 1      3 MATH 100 College Algebra      3 COMM 105 Public Speaking 1A      2 General Elective      3 <div style="text-align: right;">17</div>	<b>FIRST SEMESTER</b> ENVD 201 Environmental Design Studio 1      4 ENVD 203 Survey of Design Professions      1 ENVD 204 Studio Seminar      1 ENVD 250 History of Designed Environment 1      3 MATH 100 College Algebra      3 COMM 105 Public Speaking 1A      2 General Elective      3 <div style="text-align: right;">17</div>
<b>SECOND SEMESTER</b> ENVD 202 Environmental Design Studio II      4 ENVD 251 History of Designed Environment II      3 ENGL 100 Expository Writing I      3 PHYS 115 Descriptive Physics      5 <div style="text-align: right;">15</div>	<b>SECOND SEMESTER</b> ENVD 202 Environmental Design Studio II      4 ENVD 251 History of Designed Environment II      3 ENGL 100 Expository Writing I      3 PHYS 115 Descriptive Physics      5 <div style="text-align: right;">15</div>
<b>THIRD SEMESTER</b> ARCH 302 Architectural Design Studio 1      5 ARCH 248 Fundamentals of Arch Technology      3 ARCH 350 History of Designed Environment III      3 ENGL 200 Expository Writing II      3 *General Studies Elective      3 <div style="text-align: right;">17</div>	<b>THIRD SEMESTER</b> ARCH 302 Architectural Design Studio 1      5 ARCH 248 Fundamentals of Arch Technology      3 ARCH 350 History of Designed Environment III      3 ENGL 200 Expository Writing II      3 *General Studies Elective      3 <div style="text-align: right;">17</div>
<b>FOURTH SEMESTER</b> ARCH 304 Architectural Design Studio II      5 ARCH 274 Digital Architecture I      1 ARCH 325 Environ. Design & Society      3 ARCH 347 Structural Systems in Architecture I      4 ARCH 433 Bldg. Const. Systems in Arch. I      3 <div style="text-align: right;">16</div>	<b>FOURTH SEMESTER</b> ARCH 304 Architectural Design Studio II      5 ARCH 274 Digital Architecture I      1 ARCH 325 Environ. Design & Society      3 ARCH 347 Structural Systems in Architecture I      4 ARCH 433 Bldg. Const. Systems in Arch. I      3 <div style="text-align: right;">16</div>
<b>SUPPLEMENTAL STUDY</b> General Studies Electives      6 <div style="text-align: right;">6</div>	<b>SUPPLEMENTAL STUDY</b> General Studies Electives      6 <div style="text-align: right;">6</div>
<b>FIFTH SEMESTER</b> ARCH 403 Architectural Design Studio III      5 ARCH 373 Digital Architecture II      1 ARCH 413 Environmental Systems in Arch I      4 ARCH 448 Structural Systems in Arch. II      4 *General Studies Electives      3 <div style="text-align: right;">17</div>	<b>FIFTH SEMESTER</b> ARCH 403 Architectural Design Studio III      5 ARCH 373 Digital Architecture II      1 ARCH 413 Environmental Systems in Arch I      4 ARCH 448 Structural Systems in Arch. II      4 *General Studies Electives      3 <div style="text-align: right;">17</div>

17	17
<b>SIXTH SEMESTER</b> ARCH 404 Architectural Design Studio IV 5 ARCH 374 Digital Architecture III 1 ARCH 434 Bldg. Const. Systems in Arch II 3 ARCH 514 Environmental Systems in Arch II 3 LAR 500 Site Planning and Design 3 *General Studies Elective 3 18	<b>SIXTH SEMESTER</b> ARCH 404 Architectural Design Studio IV 5 ARCH 374 Digital Architecture III 1 ARCH 434 Bldg. Const. Systems in Arch II 3 ARCH 514 Environmental Systems in Arch II 3 LAR 500 Site Planning and Design 3 *General Studies Elective 3 18
<b>SEVENTH SEMESTER</b> ARCH 605 Architectural Design Studio V 5 **Planning Elective 3 *General Studies Elective 5 <del>*Unrestricted Elective 1</del> **Professional Support Elective 3 17	<b>SEVENTH SEMESTER</b> ARCH 605 Architectural Design Studio V 5 **Planning Elective 3 *General Studies Elective 5 **Professional Support Elective 3 16
<b>EIGHTH SEMESTER</b> ARCH 606 ADS VI (on campus, KCDC, or study abroad) 5 **Professional Support Electives 9 14 OR ARCH 505 Arch. Internship Part A 9 ARCH 506 Arch. Internship Part B 3 ARCH 507 Arch. Internship Part C 2 14	<b>EIGHTH SEMESTER</b> ARCH 606 ADS VI (on campus, KCDC, or study abroad) 5 **Professional Support Electives 9 14 OR ARCH 505 Arch. Internship Part A 9 ARCH 506 Arch. Internship Part B 3 ARCH 507 Arch. Internship Part C 2 14
<b>NINTH SEMESTER</b> ARCH 806 Architectural Design Studio VII 5 ARCH 805 Project Programming 3 ARCH 853 Pro Prac: Prof. Responsibility 1 ARCH 854 Pro Prac: Office Practice 1 ARCH 855 Pro Prac: Disc-Specific Topics 1 ARCH 750 **Writing Intensive Arch Seminar 3 *General Studies Elective 3 17	<b>NINTH SEMESTER</b> ARCH 806 Architectural Design Studio VII 5 ARCH 805 Project Programming 3 ARCH 853 Pro Prac: Prof. Responsibility 1 ARCH 854 Pro Prac: Office Practice 1 ARCH 855 Pro Prac: Disc-Specific Topics 1 ARCH 750 **Writing Intensive Arch Seminar 3 *General Studies Elective 3 17
<b>TENTH SEMESTER</b> ARCH 807 Architectural Design Studio VIII 5 ARCH 808 Architectural Design Comm. 3 **Architectural Seminar 3 **Professional Support Elective 3 *General Studies Elective 3 17	<b>TENTH SEMESTER</b> ARCH 807 Architectural Design Studio VIII 5 ARCH 808 Architectural Design Comm. 3 **Architectural Seminar 3 **Professional Support Elective 3 *General Studies Elective 3 17
<b>Undergraduate Credit Hours Required</b> <b>140</b>	<b>Undergraduate Credit Hours Required</b> <b>139</b>
<b>Graduate Credit Hours Required</b> <b>31</b>	<b>Graduate Credit Hours Required</b> <b>31</b>
<b>Total Credit Hours</b> <b>171</b>	<b>Total Credit Hours</b> <b>170</b>
A minimum of twenty-nine (29) general studies elective credits must be in non-architectural studies courses. <b><u>Courses that are part of the K-State 8 General Education program, in addition to any course in communications, history, humanities, social sciences, natural sciences, foreign languages, or mathematics will fulfill this requirement.</u></b> They may be taken in pursuit of a minor. They may be taken any time prior to or during the Architecture program and may include KSU approved AP, IB, CLEP and transfer credit. General studies electives may include KSU approved	A minimum of twenty-nine (29) general studies elective credits must be in non-architectural studies courses. <b><u>Courses that are part of the K-State 8 General Education program, in addition to any course in communications, history, humanities, social sciences, natural sciences, foreign languages, or mathematics will fulfill this requirement.</u></b> They may be taken in pursuit of a minor. They may be taken any time prior to or during the Architecture program and may include KSU approved AP, IB, CLEP and transfer credit.

<p>extracurricular work as allowed by university regulations; <del>see <a href="http://catalog.k-state.edu/content.php?catoid=13&amp;navoid=1410&amp;returnto=se-arch#cred_for_extr">http://catalog.k-state.edu/content.php?catoid=13&amp;navoid=1410&amp;returnto=se-arch#cred_for_extr</a></del>. In addition, there is a one credit unrestricted elective.</p> <p>**The M.ARCH degree requires twenty-four (24) hours of professional support (PSE) electives, twelve (12) for undergraduate credit and twelve (12) for graduate credit. Of the undergraduate credits, at least three (3) hours must be planning elective credits; the other nine (9) are usually fulfilled in the 8<sup>th</sup> semester as part of the 4<sup>th</sup> year study options. At least six (6) hour of the graduate level PSE must be architecture seminars. See the M.ARCH Handbook for further details. Students may not count more than three (3) total hours of department approved extracurricular PSE credits (such as Oz, NOMAS, Plot Club, etc.) toward graduation. PSE credits correspond to optional studies as listed in the 2014 NAAB Conditions of Accreditation.</p> <p><b><u>Most K-State 8 General Education requirements are fulfilled by required courses in the curriculum. See Academic Advising page on the APDesign website for specific K-State 8 information.</u></b></p>	<p>General studies electives may include KSU approved extracurricular work as allowed by university regulations.</p> <p>**The M.ARCH degree requires twenty-four (24) hours of professional support (PSE) electives, twelve (12) for undergraduate credit and twelve (12) for graduate credit. Of the undergraduate credits, at least three (3) hours must be planning elective credits; the other nine (9) are usually fulfilled in the 8<sup>th</sup> semester as part of the 4<sup>th</sup> year study options. At least six (6) hour of the graduate level PSE must be architecture seminars. See the M.ARCH Handbook for further details. Students may not count more than three (3) total hours of department approved extracurricular PSE credits (such as Oz, NOMAS, Plot Club, etc.) toward graduation. PSE credits correspond to optional studies as listed in the 2014 NAAB Conditions of Accreditation.</p> <p><b><u>Most K-State 8 General Education requirements are fulfilled by required courses in the curriculum. See Academic Advising page on the APDesign website for specific K-State 8 information.</u></b></p>
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## Arts and Sciences

### **Biology B.A./B.S.**

Addition of an academic sub-plan (option, specialization, etc.)

**Rationale:** Retaining the current Biology curriculum and adding tracks or focus areas within it will allow students to focus more on their area of interest, while helping to maintain and increase student numbers in the Biology major. Credit hours and rigor will remain the same with the added tracks as they are in the current Biology major.

Impact: See Curriculog file: <https://kstate.curriculog.com/proposal:3597/form>

## FROM

Biology B.A./B.S.

Students in this major may obtain either the BA or BS degree. ~~In addition to the requirements of the College of Arts and Sciences, biology majors must take the courses of blocks A, B, and C as listed below.~~

~~Because the biology major has room for at least 20 credit hours of free electives beyond the 15 credit hours of biology electives, it is a popular major for students aiming at a variety of professional health disciplines, at graduate programs ranging from molecular biology to ecology, and at a diversity of bachelor's-level jobs. Depending on the student, free electives could be courses in computer science, statistics, foreign language, business, etc., and/or additional courses in biology, biochemistry, chemistry, and math.~~

Bachelor's degree requirements

Block A: Courses offered by other departments

BIOCH 521 - General Biochemistry Credits: 3

CHM 210 - Chemistry I Credits: 4

CHM 230 - Chemistry II Credits: 4

CHM 350 - General Organic Chemistry Credits: 3

CHM 351 - General Organic Chemistry Laboratory Credits: 2

MATH 220 - Analytic Geometry and Calculus I Credits: 4

PHYS 113 - General Physics I Credits: 4

PHYS 114 - General Physics II Credits: 4

A class chosen from STAT 325, 340, 701, 703;

MATH 221, 551, 615; CIS 111, 200

Math Note

Prerequisites for MATH 220 are MATH 100 and 150 or four semesters of high school algebra and one semester of trigonometry plus appropriate math placement exam scores.

MATH 100 - College Algebra Credits: 3

MATH 150 - Plane Trigonometry Credits: 3

**Biochemistry Note**

Upon consultation with a Division of Biology advisor a student may substitute:

~~Biochemistry I and II for General Biochemistry~~

~~Organic Chemistry I and II for General Organic Chemistry~~

~~Organic Chemistry Laboratory for General Organic Chemistry Laboratory~~

~~BIOCH 755 - Biochemistry I Credits: 3~~

~~BIOCH 765 - Biochemistry II Credits: 3~~

~~CHM 531 - Organic Chemistry I Credits: 3~~

~~CHM 532 - Organic Chemistry Laboratory Credits: 2~~

~~CHM 550 - Organic Chemistry II Credits: 3~~

## TO:

Biology B.A./B.S.

Students in this major may obtain either the BA or BS degree. In addition to the requirements of the College of Arts and Sciences, biology majors must take the courses of blocks A, B, and one of the six options of block C as listed below. Biology is a valued major for students aiming at a variety of professional health disciplines, at graduate programs ranging from molecular biology to ecology, and at a diversity of bachelor's-level jobs. Each biology major will need to take about 19 credit hours of free electives beyond their specified biology coursework in order to meet graduation requirements. Free electives could be additional courses in biology, biochemistry, chemistry, and math, courses in computer science, statistics, foreign language or business, or courses in another area of student interest.

Bachelor's degree requirements

Block A: Courses offered by other departments

BIOCH 521 - General Biochemistry Credits: 3

CHM 210 - Chemistry I Credits: 4

CHM 230 - Chemistry II Credits: 4

CHM 350 - General Organic Chemistry Credits: 3

CHM 351 - General Organic Chemistry Laboratory Credits: 2

MATH 220 - Analytic Geometry and Calculus I Credits: 4

PHYS 113 - General Physics I Credits: 4

PHYS 114 - General Physics II Credits: 4

A class chosen from STAT 325, 340, 701, 703;

MATH 221, 551, 615; CIS 111, 200

Math Note

Prerequisites for MATH 220 are MATH 100 and 150 or four semesters of high school algebra and one semester of trigonometry plus appropriate math placement exam scores.

MATH 100 - College Algebra Credits: 3

MATH 150 - Plane Trigonometry Credits: 3

Chemistry/Biochemistry Note

Upon consultation with a Division of Biology advisor a student may substitute:

- Biochemistry I and II for General Biochemistry

o BIOCH 755 - Biochemistry I Credits: 3

o BIOCH 765 - Biochemistry II Credits: 3

: Organic Chemistry I and II for General Organic Chemistry

o CHM 531 - Organic Chemistry I Credits: 3

o CHM 550 - Organic Chemistry II Credits: 3

<p>Physics Note Upon consultation with a Division of Biology advisor a student may substitute:</p> <p>Engineering Physics I and II for General Physics I and II PHYS 213 - Engineering Physics I Credits: 5 PHYS 214 - Engineering Physics II Credits: 5</p> <p><del>Block B: Division of Biology courses BIOL 198 - Principles of Biology Credits: 4 BIOL 201 - Organismic Biology Credits: 5 BIOL 450 - Modern Genetics Credits: 4 BIOL 520 - Evolution Credits: 3 BIOL 529 - Ecology Credits: 3 BIOL 541 - Cell Biology Credits: 3</del></p> <p><del>Block C: Biology major electives In addition to the Block B courses students must take a minimum of 15 credit hours of biology courses at the 400* level or higher, including two courses providing a laboratory experience.</del></p> <p>Note *Students who take BIOL 341 will be awarded 3 credit hours of biology major elective credit.</p> <p><del>BIOL 341 - Human Body 1 Credits: 4 BIOL 342 - Human Body 2 Credits: 4 *Two (2) credit hours of major elective credit can be earned from BIOL 365.</del></p> <p><del>BIOL 365 - Practicum in Biology Credits: 1-4 *One to five (5) hours of credit for the following courses can be applied as biology major elective credit.</del></p> <p><del>AGRON 610 - Biotechnology Credits: 3 AGRON 645 - Soil Microbiology Credits: 3 AGRON 646 - Soil Microbiology Laboratory Credits: 4 AGRON 680 - Plant Genetics Credits: 3 ASI 533 - Anatomy and Physiology Credits: 4 BIOCH 522 - General Biochemistry Laboratory Credits: 3 ENTOM 312 - General Entomology Credits: 3 GEOG 508 - Geographic Information Systems I Credits: 4 PLPTH 500 - Principles of Plant Pathology Credits: 3 PLPTH 610 - Biotechnology Credits: 3 PSYCH 470 - Psychobiology Credits: 3</del></p>	<p><u>Organic Chemistry Laboratory for General Organic Chemistry Laboratory</u> <u>o CHM 532 - Organic Chemistry Laboratory Credits: 2</u></p> <p>Physics Note Upon consultation with a Division of Biology advisor a student may substitute:</p> <p>Engineering Physics I and II for General Physics I and II PHYS 213 - Engineering Physics I Credits: 5 PHYS 214 - Engineering Physics II Credits: 5</p> <p><u>Block B: Division of Biology courses</u> <u>BIOL 198 - Principles of Biology Credits: 4</u> <u>BIOL 450 - Modern Genetics Credits: 4</u> <u>BIOL 520 - Evolution Credits: 3</u></p> <p><u>Additional requirements – Biology major electives</u> <u>In addition to the 11 to 15 credits hours required for the student's chosen option in Part C, additional biology major electives (11 to 15 hours) are required. The total of the required option courses plus the biology major electives must be at least 26 credits. Biology major electives are biology courses at the 400 level or higher, including two courses providing a laboratory experience. See notes below.</u></p> <p><u>Notes on acceptable courses for the biology major electives</u></p> <p><u>No more than a total of three (3) credits from the combination of BIOL 695 and/or 698 may be used as biology major elective credit.</u> <u>BIOL 695 – Internship in Biology Credits: 1-3</u> <u>BIOL 698 – Research in Biology Credits: 1-8</u></p> <p><u>Two (2) credit hours of biology major elective credit can be earned from BIOL 365.</u> <u>BIOL 365 - Practicum in Biology Credits: 1-4</u></p> <p><u>In addition to biology courses numbered 400 and above as choices for biology major elective credit, one to five (5) hours of credit for the following courses can be applied toward biology major elective credit.</u></p> <p><u>AGRON 610 - Biotechnology Credits: 3</u> <u>AGRON 630 - Crop Improvement and Biotechnology Credits: 3</u> <u>AGRON 645 - Soil Microbiology Credits: 3</u> <u>AGRON 646 - Soil Microbiology Laboratory Credits: 1</u> <u>AGRON 680 - Plant Genetics Credits: 3</u> <u>ASI 533 - Anatomy and Physiology Credits: 4</u> <u>BIOCH 522 - General Biochemistry Laboratory Credits: 3</u></p>
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Total credit hours required for graduation: (120)

BIOCH 571 - Medical Biochemistry Credits: 3  
BIOCH 755 - Biochemistry I Credits: 3 (if not used for Biochemistry credit in Block A)  
BIOCH 765 - Biochemistry II Credits: 3 (if not used for Biochemistry credit in Block A)  
ENTOM 312 - General Entomology Credits: 3  
GEOG 445 - Biogeography Credits: 3  
GEOG 508 - Geographic Information Systems I Credits: 4  
PLPTH 500 - Principles of Plant Pathology Credits: 3  
PLPTH 610 - Biotechnology Credits: 3  
PSYCH 470 - Psychobiology Credits: 3

Block C: Options

Integrative biology option (11 credits)

BIOL 401 - Organismic Biology Credits: 5

BIOL 529 - Ecology Credits: 3

BIOL 541 - Cell Biology Credits: 3

Animal biology option (13 credits)

BIOL 401 - Organismic Biology Credits: 5

BIOL 513 - Physiological Adaptations of Animals

Credits: 4

BIOL 541 - Cell Biology Credits: 3

Cellular and molecular biology option (13 credits)

BIOL 455 Microbiology Credits: 4

BIOL 541 Cell Biology Credits: 3

BIOL 580 Molecular Biology of Genes and Genomes

Credits: 3

A class chosen from:

- BIOL 461 - Phage Hunters 1 Credits: 3
- BIOL 676 - Molecular Genetics Laboratory Credits: 3
- BIOL 695 - Internship in Biology Credits: 3
- BIOL 698 - Research in Biology Credits: 3

Ecology and evolutionary biology option (12 credits)

BIOL 401 - Organismic Biology Credits: 5

BIOL 529 - Ecology Credits: 3

BIOL 632 - Ecology Lab Credits: 1

BIOL 640 - Population Biology Credits: 3

Human health biology option (15 credits)

BIOL 441 - Human Body 1 Credits: 4

BIOL 442 - Human Body 2 Credits: 4

BIOL 455 - Microbiology Credits: 4

BIOL 541 - Cell Biology Credits: 3

Plant biology option (14-15 credits)

BIOL 401 - Organismic Biology Credits: 5

BIOL 500 - Plant Physiology Credits: 3

BIOL 551 - Taxonomy of Flowering Plants Credits: 4

A class chosen from:

- BIOL 461 - Phage Hunters 1 Credits: 3



	<ul style="list-style-type: none"> <li>• <u>BIOL 676 - Molecular Genetics Laboratory Credits: 3</u></li> <li>• <u>BIOL 695 - Internship in Biology Credits: 2</u></li> <li>• <u>BIOL 698 - Research in Biology Credits: 2</u></li> </ul> <p>Total credit hours required for graduation: (120)</p>
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## **Psychology B.A./B.S.**

Rationale: What is changing? Revising core course requirements.

Rationale: Why is it changing? We propose to increase the Psychology major from 33 to 36 credits by adding a requirement that our majors take one additional course with an applied/health focus.

We have conducted a review of the requirements for the Psychology major in the Department of Psychological Sciences at Kansas State University. In this review we compared our major requirements to those of peer institutions. Our review revealed two key findings.

First, our major currently includes fewer classes than do the majors required in psychology at our peer institutions, and is one of the smaller majors in terms of credits required among the academic departments of our own College of Arts and Sciences. This indicates that our students are getting less exposure to discipline-specific content than do their peers majoring in psychology at other institutions and majoring in other disciplines at Kansas State University.

Second, our major currently requires our students to take courses that focus on the areas of cognitive psychology and neuroscience and on the areas of social and personality psychology, but fails to include any formal requirement that our students take any course with an explicit health or applied focus.

Given psychology's important historical and contemporary contributions to the area of mental health and applications in industry, this is an issue we find imperative to resolve. Accordingly, we propose to add a core course requirement that would require psychology majors to take a psychology course with an applied or health psychology focus. To make the organization of our core courses more explicit to our students, we will also add descriptive headings to the current and additional core course groupings.

This addition of a single three-credit course still makes our psychology major requirements comprise a "smaller" major among our peer institutions and the academic departments in the College of Arts and Sciences at Kansas State University. However, this additional course requirement will serve to enhance the breadth of the education our psychology majors will earn in important ways, making them more marketable for jobs and careers and more competitive in their applications to psychology graduate programs.

This change to our major will not have any foreseeable impacts on any other academic unit in the College of Arts and Sciences or the broader University. Further, we propose this change within

our existing course offerings (i.e., it is not dependent on our offering new courses) and can accommodate this change with our current department personnel (i.e., it is not dependent on our hiring new instructors).

Rationale: Additional information (if necessary): The proposed organization of our revised core course requirements are below.

**Cognitive Psychology and Neuroscience Core**

Choose two from the following:

- Psych 460 Cognitive Psychology
- Psych 470 Psychobiology
- Psych 475 Principles of Learning
- Psych 480 Fundamentals of Perception and Sensation

**Social and Personality Psychology Core**

Choose one from the following:

- Psych 605 Advanced Social Psychology
- Psych 620 Psychology of Personality

**Applied and Health Psychology Core**

Choose one from the following:

- Psych 505 Abnormal Psychology
- Psych 518 Introduction to Health Psychology
- Psych 560 Industrial Psychology
- Psych 564 Psychology of Organizations
- Psych 565 Occupational Health Psychology

Impact statement: This change to our major will not have any foreseeable impacts on any other academic unit in the College of Arts and Sciences or the broader University.

<p>Our undergraduate major in psychology provides students with a broad liberal arts education and an understanding of how psychologists study behavior and what psychologists have learned about behavior. The knowledge and skills students obtain are useful in a wide variety of employment settings and careers. Additional course work and experiences are available for students preparing for advanced study at the graduate level and for students interested in careers in social services. The minimum requirements for completing a major in psychology are small enough that some students are able to complete the requirements of a second major</p>	<p>Our undergraduate major in psychology provides students with a broad liberal arts education and an understanding of how psychologists study behavior and what psychologists have learned about behavior. The knowledge and skills students obtain are useful in a wide variety of employment settings and careers. Additional course work and experiences are available for students preparing for advanced study at the graduate level and for students interested in careers in social services. The minimum requirements for completing a major in psychology are small enough that some students are able to complete the requirements of a second major</p>
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in the College of Arts and Sciences or a second degree in another college in four years.

Psychology is both an academic discipline and a profession. To become a professional psychologist, a one must receive advanced training. Our undergraduate program in psychology does not train people to become professional psychologists; however, we do offer students the opportunity to earn academic credit for participating in research and in supervised field experiences in social service agencies, industry, and government settings. Thus, students can gain experience working with professional psychologists.

## **Bachelor's degree requirements**

### **Entrance requirements**

To become a psychology major, a student must:

A. Present evidence of having earned a cumulative GPA of at least 2.50 (on a 4 point scale) based on a minimum of 15 credit hours earned at K-State and sophomore standing (a minimum of at least 30 total credit hours, including transfer hours);

**or**

B. Present evidence of 60 or more transfer credit hours from another accredited institution with a GPA of at least 2.50.

To graduate from K-State with either a bachelor of arts or a bachelor of science degree in psychology, a student must fulfill the university, college, and departmental requirements, and have cumulative GPAs of at least 2.5 in both (a) all psychology courses

in the College of Arts and Sciences or a second degree in another college in four years.

Psychology is both an academic discipline and a profession. To become a professional psychologist, a one must receive advanced training. Our undergraduate program in psychology does not train people to become professional psychologists; however, we do offer students the opportunity to earn academic credit for participating in research and in supervised field experiences in social service agencies, industry, and government settings. Thus, students can gain experience working with professional psychologists.

## **Bachelor's degree requirements**

### **Entrance requirements**

To become a psychology major, a student must:

A. Present evidence of having earned a cumulative GPA of at least 2.50 (on a 4 point scale) based on a minimum of 15 credit hours earned at K-State and sophomore standing (a minimum of at least 30 total credit hours, including transfer hours);

**or**

B. Present evidence of 60 or more transfer credit hours from another accredited institution with a GPA of at least 2.50.

To graduate from K-State with either a bachelor of arts or a bachelor of science degree in psychology, a student must fulfill the university, college, and departmental requirements, and have cumulative GPAs of at least 2.5 in both (a) all psychology courses

undertaken at K-State and (b) all course work undertaken at K-State.

Psychology majors may enroll in any classes offered by the Department of Psychological Sciences for which they have the prerequisites.

## **Pre-psychology majors requirements**

Students interested in majoring in psychology who have not yet satisfied one of the two standards described above will be designated as pre-psychology majors. Pre-psychology majors can enroll in any course offered by the Department of Psychological Sciences except the following:

- PSYCH 350 - Experimental Methods in Psychology **Credits: 3**
- PSYCH 351 - Experimental Methods Laboratory **Credits: 2**
- PSYCH 460 - Cognitive Psychology **Credits: 3**
- PSYCH 475 - Principles of Learning **Credits: 3**
- PSYCH 480 - Fundamentals of Perception and Sensation **Credits: 3**
- PSYCH 605 - Advanced Social Psychology **Credits: 3**
- PSYCH 620 - Psychology of Personality **Credits: 3**

## **Requirements for the major**

In addition to the general requirements for a BA or BS degree in the College of Arts and Sciences the undergraduate major in psychology consists of the following set of required courses:

- PSYCH 110 - General Psychology **Credits: 3**

undertaken at K-State and (b) all course work undertaken at K-State.

Psychology majors may enroll in any classes offered by the Department of Psychological Sciences for which they have the prerequisites.

## **Pre-psychology majors requirements**

Students interested in majoring in psychology who have not yet satisfied one of the two standards described above will be designated as pre-psychology majors. Pre-psychology majors can enroll in any course offered by the Department of Psychological Sciences except the following:

- PSYCH 350 - Experimental Methods in Psychology **Credits: 3**
- PSYCH 351 - Experimental Methods Laboratory **Credits: 2**
- PSYCH 460 - Cognitive Psychology **Credits: 3**
- PSYCH 475 - Principles of Learning **Credits: 3**
- PSYCH 480 - Fundamentals of Perception and Sensation **Credits: 3**
- PSYCH 605 - Advanced Social Psychology **Credits: 3**
- PSYCH 620 - Psychology of Personality **Credits: 3**

## **Requirements for the major**

In addition to the general requirements for a BA or BS degree in the College of Arts and Sciences the undergraduate major in psychology consists of the following set of required courses:

- PSYCH 110 - General Psychology **Credits: 3**

- PSYCH 500 - Junior Seminar in Psychology **Credits: 1**
- PSYCH 350 - Experimental Methods in Psychology **Credits: 3**
- PSYCH 351 - Experimental Methods Laboratory **Credits: 2**
- STAT 325 - Introduction to Statistics **Credits: 3**

**Choose two from the following:**

- ~~PSYCH 460 - Cognitive Psychology **Credits: 3**~~
- ~~PSYCH 470 - Psychobiology **Credits: 3**~~
- ~~PSYCH 475 - Principles of Learning **Credits: 3**~~
- ~~PSYCH 480 - Fundamentals of Perception and Sensation **Credits: 3**~~

**Choose one from the following:**

- ~~PSYCH 605 - Advanced Social Psychology **Credits: 3**~~
- ~~PSYCH 620 - Psychology of Personality **Credits: 3**~~

**Psychology Electives (12 credit hours)**

- PSYCH 500 - Junior Seminar in Psychology **Credits: 1**
- PSYCH 350 - Experimental Methods in Psychology **Credits: 3**
- PSYCH 351 - Experimental Methods Laboratory **Credits: 2**
- STAT 325 - Introduction to Statistics **Credits: 3**

**Cognitive Psychology and Neuroscience Core**

Choose two from the following:

- Psych 460 Cognitive Psychology
- Psych 470 Psychobiology
- Psych 475 Principles of Learning
- Psych 480 Fundamentals of Perception and Sensation

**Social and Personality Psychology Core**

Choose one from the following:

- Psych 605 Advanced Social Psychology
- Psych 620 Psychology of Personality

**Applied and Health Psychology Core**

Choose one from the following:

- Psych 505 Abnormal Psychology
- Psych 518 Introduction to Health Psychology
- Psych 560 Industrial Psychology
- Psych 564 Psychology of Organizations
- Psych 565 Occupational Health Psychology

**Psychology Electives (12 credit hours)**

## **Business Administration**

### **Data Analytics Certificate**

**Rationale: What is changing?** We are adding two courses to the list of electives offered for the certificate. The courses are CIS 531 Introduction to Programming Techniques for Data Science and Analytics Credits: (3) and MANGT 663 Supply Chain Analytics Credits: 3.

**Rationale: Why is it changing?** This will give the student doing the certificate more choices in choosing their electives for the certificate.

**Impact Statement:** The only unit this will impact will be the Department of Computer Science. Below is a letter of support from them supporting adding CIS 531 to the Certificate of Data Analytics. Letter of Support: CIS 531 From: Rodney Howell Sent: Tuesday, April 16, 2019 3:50 PM To: Chwen Sheu Cc: Roger McHaney; Bongsug Chae; Scott DeLoach; William Hsu Subject: Re: Analytics course vote today? Chwen, It's fine with us if CIS 531 is added to the data analytics certificate. It will be offered online. Rod On 4/16/2019 10:31 AM, Chwen Sheu wrote: Rodney, Thanks for the update. Our college would support your suggestion. CIS 731 is currently the required course for the MS-DA program. I expect the demand for that course increases in the next few years. Also, can I add the proposed CIS 531 to our undergrad data analytics certificate? Is it also offered online? Chwen \*\*\*\*\* Chwen Sheu, Ph.D. Paul Edgerley Chair in Bus Ad Associate Dean College of Business Administration Kansas State University Manhattan, KS 66506 (785) 532-4363 <http://www.chwensheu.com>

### **Data Analytics Certificate**

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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.

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.

Other Requirements:

Students must earn at least a 2.5 GPA on all courses taken to fulfill the requirements of the certificate program.

The certificate will be issued by the K-State College of Business Administration and noted on the transcript. The certificate can be earned post-baccalaureate.

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.

Change from:	Change to:
<b>Core Courses (9 credit hours)</b>	<b>Core Courses (9 credit hours)</b>
MIS 665 Business Analytics and Data Mining <b>Credits: 3</b>	MIS 665 Business Analytics and Data Mining <b>Credits: 3</b>
MIS 670 Social Media Analytics and Web Mining <b>Credits: 3</b>	MIS 670 Social Media Analytics and Web Mining <b>Credits: 3</b>
MKTG 580 Marketing Analytics Fundamentals <b>Credits: 3</b>	MKTG 580 Marketing Analytics Fundamentals <b>Credits: 3</b>
<b>Elective Courses</b> ( <i>Select two (2) courses from the following lists</i> )	<b>Elective Courses</b> ( <i>Select two (2) courses from the following lists</i> )
	<u>CIS 531 Introduction to Programming Techniques for Data Science and Analytics</u> <b>Credits: (3)</b>
ECON 630 Introduction to Econometrics <b>Credits: 3</b>	ECON 630 Introduction to Econometrics <b>Credits: 3</b>
FINAN 623 Financial Modeling <b>Credits: 3</b>	FINAN 623 Financial Modeling <b>Credits: 3</b>
	<u>MANGT 663 Supply Chain Analytics</u> <b>Credits: 3</b>
MANGT 521 Managerial Decision Analytics <b>Credits: 3</b>	MANGT 521 Managerial Decision Analytics <b>Credits: 3</b>
MKTG 642 Marketing Research <b>Credits: 3</b>	MKTG 642 Marketing Research <b>Credits: 3</b>
MKTG 581 Applications of Marketing Analytics <b>Credits: 3</b>	MKTG 581 Applications of Marketing Analytics <b>Credits: 3</b>
MIS 422 Studio 2: Business Database Systems <b>Credits: 3</b>	MIS 422 Studio 2: Business Database Systems <b>Credits: 3</b>
<b>Total credit hours: (15)</b>	<b>Total credit hours: (15)</b>

## Investment Management Certificate

**Rationale: What is changing?** The name of the certificate is being changed from Integrated Investment Management to Investment Management. New courses are being added from other colleges and some finance courses are being removed.

**Rationale: Why is it changing?** In order to streamline the certificate and allow a broader range of students to take the certificate.

**Impact Statement:** Name of Certificate changing to Certificate in Investment Management. New course added to Core Courses: FINAN 250 Personal Investing and Risk Management Credits: (3). Students will have a choice of taking either FINAN 250 or FINAN 450 Principles of Finance Credits: (3) Remove courses from Elective Courses: FINAN 623 Financial Modeling Credits: (3), FINAN 653 Security and Portfolio Analysis Credits: (3), and MANGT 566 Computer Systems for Finance and Investment Management Credits: (3). Also, students will not be able to substitute FINAN 510 and FINAN 520 (both must be completed) for FINAN 500. New courses being added to Elective Course area: AGEC 520 Market Fundamentals and Futures/Options Trading Credits: (3), COMM 526 Persuasion Credits: (3), ECON 530 Money and Banking Credits: (3), IMSE 530 Engineering Economic Analysis Credits: (2) and IMSE 532 Industrial Project Evaluation Credits: (1), MATH 501 Mathematical Foundations of Actuarial Science Credits: (3), MKTG 542 Fundamentals of Professional Selling Credits: (3), and PFP 305 Advanced Personal Financial Planning Credits: (3). Letters of Support are added as a file attachment (see Curriculog).

<p>The <del>Certificate in Integrated Investment Management</del> is intended for those <del>business majors whose career interests lie</del> in the investment management industry. The required courses are designed to provide these students with the fundamentals of <del>investment management</del> and a broader business perspective of the investment management industry. After completing this certificate students will be able to:</p> <ul style="list-style-type: none"> <li>• 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.</li> <li>• 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.</li> <li>• Explore the legal and ethical environments within which investment management firms operate.</li> <li>• Analyze financial statements and show their relationship to security valuation.</li> <li>• Identify personal and professional skills necessary for success in the investment management industry.</li> </ul> <p>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.</p>	<p>The <u>Certificate in Investment Management</u> is intended for those <u>students who have</u> interests in <u>personal investing or</u> in the investment management industry. The required courses are designed to provide these students with the fundamentals of <u>investing</u> and a broader business perspective of the investment management industry. After completing this certificate students will be able to:</p> <ul style="list-style-type: none"> <li>• 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.</li> <li>• 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.</li> <li>• Explore the legal and ethical environments within which investment management firms operate.</li> <li>• Analyze financial statements and show their relationship to security valuation.</li> <li>• Identify personal and professional skills necessary for success in the investment management industry.</li> </ul> <p>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.</p>
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~~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.~~

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.

#### Certificate Requirements

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)

- FINAN 450 - Principles of Finance Credits: 3
- FINAN 451 - Introduction to Integrated Investment Management Credits: 3
- FINAN 500 - Investment Management Concepts Credits: 3

#### Elective Courses (6 credit hours)

Select 2 of the following ~~four~~ courses

- ACCTG 445 - Financial Statement Analysis Credits: 3
- ~~FINAN 623 - Financial Modeling Credits: 3~~
- ~~FINAN 653 - Security and Portfolio Analysis Credits: 3~~
- ~~MANGT 566 - Computer Systems for Finance and Investment Management Credits: 3~~

#### Course and Certificate Completion Notes

- Students must earn a minimum of 2.5 GPA on courses taken to fulfill the requirements of the Certificate in Integrated Investment Management.
- No more than 25% of total credit hours required for the certificate may be transfer

Students who have earned this Certificate will be able to distinguish themselves by demonstrating competency in personal investing or the investment management industry

#### Certificate Requirements

All students enrolled in the Certificate will take 9 credit hours of the core, and choose six credit hours from eligible electives.

#### Investment Management Core Courses (9 credit hours)

- FINAN 250 - Personal Investing or FINAN 450 - Principles of Finance Credits: 3
- FINAN 451 - Introduction to Integrated Investment Management Credits: 3
- FINAN 500 - Investment Management Concepts Credits: 3

#### Elective Courses (6 credit hours)

Select 2 of the following:

- ACCTG 445 - Financial Statement Analysis Credits: 3
- AGEC 520 - Market Fundamentals and Futures/Options Trading Credits: 3
- COMM 526 - Persuasion Credits: 3
- ECON 530 - Money and Banking Credits: 3
- IMSE 530 - Engineering Economic Analysis Credits: 2 and IMSE 532 - Industrial Project Evaluation Credits: 1
- MATH 501 - Mathematical Foundations of Actuarial Science Credits: 3
- MKTG 542 - Fundamentals of Professional Selling Credits: 3
- PFP 305 - Advanced Personal Financial Planning Credits: 3

#### Course and Certificate Completion Notes

- Students must earn a minimum of 2.5 GPA on courses taken to fulfill the requirements of the Certificate in Integrated Investment Management.
- 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.
- 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

<p>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.</p> <ul style="list-style-type: none"> <li>● <del>Students will be able to substitute FINAN 510 and FINAN 520 (both must be completed) for FINAN 500.</del> <ul style="list-style-type: none"> <li>○ <del>FINAN 510 Financial Institutions and Markets Credits: 3</del></li> <li>○ <del>and</del></li> <li>○ <del>FINAN 520 Investments Credits: 3</del></li> </ul> </li> <li>● 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.</li> </ul> <p>Total credit hours: (15)</p>	<p>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.</p> <p>Total credit hours: (15)</p>
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## Professional Strategic Selling Certificate (PSS)

**Rationale: What is changing?** We are adding a new course that will be required for students earning the Certificate in Professional Strategic Selling: Sales Technology.

**Rationale: Why is it changing?** Because we are adding a required course, we are moving MKTG 570 from required to elective. We have also added some other electives that are current course offerings.

**Impact Statement:** Financial Planning will be impacted by the addition of PFP 456 Financial Counseling and Communications. We have received support for the inclusion of this course from Martin Seay via email on 8/23/2019. We had included a previous version of this course as an elective but it was removed accidentally.

## Professional Strategic Selling Certificate (PSS)

The Professional Strategic Selling Certificate is designed to prepare students for a career in sales. The program exposes students to the fundamentals of sales and through innovative curriculum and sales labs, allows them to develop the skills needed to be successful. The certificate is open to all majors within the university.

The certificate consists of 15 credit hours, one current core course in Business Administration and four courses related to sales. Entry into the PSS Certificate program is competitive. Students must apply and be accepted to the program via a behaviorally-based interview process conducted by faculty and corporate partners.

Students must earn a minimum 2.50 grade point average on courses taken to fulfill the requirements of the certificate.

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.

The 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 2.5 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.

**Change From:**

**Change To:**

<p><b>Core Courses</b></p> <hr/> <p>MKTG 400 - Introduction to Marketing <b>Credits: 3</b>  MKTG 542 - Fundamentals of Professional Selling <b>Credits: 3</b>  MKTG 560 - Sales Force Leadership <b>Credits: 3</b>  <del>MKTG 570 - Advanced Selling <b>Credits: 3</b></del></p> <p><b>Elective Course: Choose one from the following courses.</b></p> <hr/> <p>COMM 321 - Public Speaking II <b>Credits: 3</b></p>	<p><b>Core Courses</b></p> <hr/> <p>MKTG 400 - Introduction to Marketing <b>Credits: 3</b>  MKTG 542 - Fundamentals of Professional Selling <b>Credits: 3</b>  MKTG 555 – Sales Technology <b>Credits: 3</b>  MKTG 560 - Sales Force Leadership <b>Credits: 3</b></p> <p><b>Elective Course: Choose one from the following courses.</b></p> <hr/> <ul style="list-style-type: none"> <li>• COMM 321 - Public Speaking II <b>Credits: 3</b></li> </ul>
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<p>COMM 322 - Interpersonal Communication <b>Credits: 3</b>  COMM 323 - Nonverbal Communication <b>Credits: 3</b>  COMM 526 - Persuasion <b>Credits: 3</b>  HM 424 - Hospitality Sales and Promotion <b>Credits: 3</b>  MANGT 662 - Procurement, Logistics and Supply Chain Design <b>Credits: 3</b>  MKTG 550 - Business Marketing <b>Credits: 3</b></p> <p><b>Total hours required: 15</b></p>	<ul style="list-style-type: none"> <li>• COMM 322 - Interpersonal Communication <b>Credits: 3</b></li> <li>• COMM 323 - Nonverbal Communication <b>Credits: 3</b></li> <li>• COMM 526 - Persuasion <b>Credits: 3</b></li> <li>• HM 424 - Hospitality Sales and Promotion <b>Credits: 3</b></li> <li>• MANGT 662 - Procurement, Logistics and Supply Chain Design <b>Credits: 3</b></li> <li>• <u>MKTG 496 – Special Topics in Marketing: Relationship Marketing <b>Credits: 3</b></u></li> <li>• <u>MKTG 496 – Special Topics in Marketing: International Business Development <b>Credits: 3</b></u></li> <li>• <u>MKTG 499 Sales Practicum <b>Credits: 3</b></u></li> <li>• MKTG 550 - Business Marketing <b>Credits: 3</b></li> <li>• <u>MKTG 561 – Sales Negotiations <b>Credits: 3</b></u></li> <li><u>MKTG 562 – Key Account Management <b>Credits: 3</b></u></li> <li><u>MKTG 563 - Customer Relationship Management <b>Credits: 3</b></u></li> <li><u>MKTG 570 – Advanced Selling <b>Credits: 3</b></u></li> <li><u>PFP 456 - Financial Counseling and Communication <b>Credits: 3</b></u></li> </ul> <p><b>Total hours required: 15</b></p>
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## Education

### Teacher Education Admission Requirements in the Undergraduate Catalog

<https://catalog.k-state.edu/content.php?catoid=40&navoid=7056>

Changing the testing requirements for admission into the program.

Rationale: Based upon the fluidity of the CORE (entrance instrument) and to better reflect the need to meet CAEP accreditation expectations, the following is proposed to meet those requirements. The following policy is going to replace the Basic Skills Test in the catalog.

A composite ACT score of 22 or higher is required for admission to preprofessional studies in Teacher Education. All applicants, including transfer students, are required to submit ACT scores, including the composite score as well as scores in reading and mathematics.

Applicants with an ACT score below 22 can be admitted to preprofessional studies in Teacher Education provisionally on the basis of evidence of potential success in the program and as a K-12 teacher. Provisional admission can be lifted upon completion of all other requirements for full admission to Teacher Education.

Applicants who have never taken the ACT can be admitted provisionally pending submission of an ACT score.

Impact Statement: Faculty from Agriculture, Music, Family and Consumer Science, and Early Childhood Education participated in these policy recommendations.

<b>Admission Requirements for Teacher Education</b>	<b>Admission Requirements for Teacher Education</b>
<p>The application for admission to a teacher education program may be filed when the applicant has satisfied all of the <a href="#">admission requirements</a>. Transfer students who have satisfied all the admission requirements should apply at the time of initial enrollment. Students making changes in degree programs within teacher education must reapply for teacher education.</p>	<p>The application for admission to a teacher education program may be filed when the applicant has satisfied all of the <a href="#">admission requirements</a>. Transfer students who have satisfied all the admission requirements should apply at the time of initial enrollment. Students making changes in degree programs within teacher education must reapply for teacher education.</p>
<p><b>Orientation</b></p>	
<p>Successful completion of <a href="#">DED-075 Orientation to Teacher Education at K-State</a>.</p>	
<p><b>Hours</b></p>	<p><b>Hours</b></p>
<p>Fifty total hours for secondary, 42 hours for elementary must be completed, including all transfer and K-State credits.</p>	<p>Fifty total hours for secondary, 42 hours for elementary must be completed, including all transfer and K-State credits.</p>
<p><b>English composition</b></p>	<p><b>English composition</b></p>
<p>Both Expository Writing I and II must be completed satisfactorily with a grade no lower than C (2.0).</p>	<p>Both Expository Writing I and II must be completed satisfactorily with a grade no lower than C (2.0).</p>
<p><b>Public speaking</b></p>	<p><b>Public speaking</b></p>

A grade of C or better is required in COMM 105, 106, or 109. Courses in interpersonal communication do not apply.

### **Quantitative sciences**

A grade of C or better is required in six credit hours of mathematics including college algebra, or a higher level of mathematics and a statistics course (for elementary education, MATH 160 is acceptable).

### **Overall Degree Program GPA**

A 2.75 GPA is required in all attempted courses that meet degree program requirements, including all graded transfer and K-State credits. Probationary admission may be granted if the student has a 2.6 GPA and all other requirements are met. GPA must be 2.75 before the Professional semester.

### **Teaching Field GPA**

A 2.75 GPA is required in all college work attempted in the required teaching field courses. (This includes work at K-State and other institutions.) Probationary admission may be granted if the student has a 2.6 GPA and all other requirements are met. GPA must be 2.75 before the Professional semester. Note: Elementary education majors do not have a teaching field.

### **Pre-professional skills tests**

The Praxis Core Academic Skills for Educators (CORE) is required for admission to teacher education for all students who do not have an ACT composite score of 22 or above. The test includes sections on Reading, Writing, and Math. A minimum passing score will be established when sufficient data is available. Until that time, students must take

A grade of C or better is required in COMM 105, 106, or 109. Courses in interpersonal communication do not apply.

### **Quantitative sciences**

A grade of C or better is required in six credit hours of mathematics including college algebra, or a higher level of mathematics and a statistics course (for elementary education, MATH 160 is acceptable).

### **Overall Degree Program GPA**

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### **Teaching Field GPA**

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### **Testing**

A composite ACT score of 22 or higher is required for admission to preprofessional studies in Teacher Education. All applicants, including transfer students, are required to submit ACT scores, including the composite score as well as scores in reading and mathematics.

Applicants with an ACT score below 22 can be admitted to preprofessional studies in Teacher Education provisionally on the basis of evidence of potential success in the program and as a K-12 teacher. Provisional admission can be lifted upon

the CORE test with no required minimum score.

completion of all other requirements for full admission to Teacher Education.

Applicants who have never taken the ACT can be admitted provisionally for one semester pending submission of an ACT score.

### Early field experience

Early field experience is completed in ED~~EL~~/EDSEC 230. This experience includes 40 hours of observation in a classroom.

### Early field experience

Early field experience is completed in ED~~EL~~CI 230. This experience includes 40 hours of observation in a classroom.

### Application deadlines

- To early enroll for summer or fall professional classes, apply by: February 15
- To early enroll for spring professional classes, apply by: October 1

### Application deadlines

- To early enroll for summer or fall professional classes, apply by: February 15
- To early enroll for spring professional classes, apply by: October 1

When the applications are approved, students are notified of their acceptance into the respective teacher education professional program. Students who do not meet the requirements will be notified of the options available to them.

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## Health and Human Sciences

### **Athletic Training and Rehabilitation Sciences (B. S.) – DEGREE NAME CHANGE**

**Rationale: What is changing-** The changes proposed to the current BS in Athletic Training Degree program include a name change to the BS in Athletic Training and Rehabilitation Sciences. The name change is needed for accreditation, specifically to differentiate the undergraduate pre-professional degree program from the MS in Athletic Training Professional degree program that will start in the Summer of 2020. Curricular changes include moving the FNDH 450, FNDH 553, FNDH 554 and FNDH 635 to unrestricted electives. We have added the FNDH 321, FNDH 355, FNDH 455, and FNDH 654 courses to the curriculum. The curricular changes are being made in conjunction with the name change to provide the rehabilitation foundational knowledge needed using existing courses that were previously developed for elective courses.

**Why is it changing-** The name change is needed to comply with the standards set in place by the Commission on Accreditation of Athletic Training Education (CAATE) specifically to differentiate the undergraduate pre-professional degree program from the MS in Athletic Training Professional degree program that will start in the Summer of 2020. FNDH and the Athletic Training Program must clearly provide the academic curriculums and show the difference of the MS degree professional program from the pre-professional options.

**CAATE Standard 24-Prospective and enrolled students are provided with relevant and accurate information about the institution and program. Available information must include the following:**

- 24A Academic calendars
- 24B Academic curriculum and course sequence
- 24C Admissions process (including prerequisite courses).....

The curricular changes are being made in conjunction with the name change to provide additional foundational rehabilitation knowledge for the students and to academically support the name change.

**Impact (i.e. if this impacts another unit) – Statement should include the date when the head of a unit was contacted, and the response or lack of:** The only curricular changes made were to FNDH courses and therefore didn't impact any other unit on campus.

Entire curriculum, curriculum description or admission criteria must be shown below. *Be sure to use current catalog information.*

FROM:

TO:

<p>Athletic Training (B.S.)</p> <p>Kansas State University's Athletic Training undergraduate program is a <del>pre-professional healthcare degree program that foundationally prepares students for additional training and application in advanced healthcare degrees.</del> The Athletic Training program is housed in the Department of Food, Nutrition, Dietetics, and Health and functions with the support from the K-State Division of Intercollegiate Athletics. This program will meet the admission requirements for many Master's Professional-level Athletic Training programs, specifically the program at Kansas State University. The athletic training pre-professional program prepares students for a career as an allied health professional. Students in this program study the foundational concepts and learn to critically apply the knowledge needed to properly manage the health care needs of physically active individuals at all levels and ages. Pre-professional students must undergo a period of guided observation in athletic training clinical sites and a variety of healthcare settings that are both on and off campus. These experiences allow students to gather firsthand knowledge on employment settings</p>	<p>Athletic Training <b>and Rehabilitation Sciences</b> (B.S.)</p> <p>Kansas State University's Athletic Training and <b>Rehabilitation Sciences</b> undergraduate <b>degree</b> program prepares students for <b>a career as an allied-health professional and/or entry into graduate professional degree programs such as Athletic Training, Physical Therapy, Physician Assistant and Occupational Therapy.</b> This program is housed in the Department of Food, Nutrition, Dietetics, and Health. <b>The plan of study</b> meets the admission requirements for many <b>health professional</b> programs, specifically the <b>MS in Athletic Training</b> program at Kansas State University. The pre-professional <b>program teaches foundational concepts related to athletic training and rehabilitation sciences with a focus on allowing students to learn</b> to critically apply the knowledge needed to properly manage the health care needs of physically active individuals at all levels and ages. <b>In order to complement classroom learning,</b> pre-professional students must undergo a period of guided observation at clinical sites and a variety of healthcare settings that are both on and off campus. These experiences allow students to gather firsthand knowledge on employment settings and make informed decisions about their</p>
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<p>and make informed decisions about their future career options. Examples of settings that professionals may be working in include: secondary schools, colleges and universities, professional sports, performing arts, military, industrial, sports medicine clinics (both assisting physicians and in rehabilitation) and other healthcare settings.</p> <p>K-State has proactively developed this degree program to respond to the <del>National Athletic Trainers Association's</del> Athletic Training Strategic Alliances' decision to require a Master's degree to become eligible for certification as an Athletic Trainer. For more information regarding the MS in AT Degree at Kansas State University, please see our website for the most current information.</p> <p>Bachelor's degree requirements General requirements (53-54 credit hours)</p> <p>Communications (8-9 credit hours) ENGL 100 - Expository Writing I Credits: 3 ENGL 200 - Expository Writing II Credits: 3 One of the following two courses COMM 105 - Public Speaking IA Credits: 2 or COMM 106 - Public Speaking I Credits: 3</p> <p>Social Science (9 credit hours) ECON 110 - Principles of Macroeconomics Credits: 3 PSYCH 110 - General Psychology Credits: 3 SOCIO 211 - Introduction to Sociology Credits: 3</p> <p>Humanities (6 credit hours) (Only a course of 3 credits or more will apply.)</p> <p>Natural and Physical Sciences (20 credit hours) BIOL 198 - Principles of Biology Credits: 4  BIOL 341 - Human Body I Credits: 4</p>	<p>future health career options. Examples of healthcare settings that professionals may be working in include: secondary schools, colleges and universities, professional sports, performing arts, military, industrial, sports medicine clinics (both assisting physicians and in rehabilitation) and other healthcare settings.</p> <p>K-State has proactively developed this degree program to respond to the Athletic Training Strategic Alliances' decision to require a Master's degree to become eligible for certification as an Athletic Trainer. For more information regarding the MS in AT Degree at Kansas State University, please see our website for the most current information.</p> <p>Bachelor's degree requirements General requirements (53-54 credit hours)</p> <p>Communications (8-9 credit hours) ENGL 100 - Expository Writing I Credits: 3 ENGL 200 - Expository Writing II Credits: 3 One of the following two courses COMM 105 - Public Speaking IA Credits: 2 or COMM 106 - Public Speaking I Credits: 3</p> <p>Social Science (9 credit hours) ECON 110 - Principles of Macroeconomics Credits: 3 PSYCH 110 - General Psychology Credits: 3 SOCIO 211 - Introduction to Sociology Credits: 3</p> <p>Humanities (6 credit hours) (Only a course of 3 credits or more will apply.)</p> <p>Natural and Physical Sciences (20 credit hours) BIOL 198 - Principles of Biology Credits: 4  BIOL 341 - Human Body I Credits: 4</p>
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<p>and BIOL 342 - Human Body II Credits: 4 or</p> <p>KIN 360 - Anatomy and Physiology Credits: 8</p> <p>CHM 210 - Chemistry I Credits: 4 or CHM 110 - General Chemistry Credits: 3 and CHM 111 - General Chemistry Laboratory Credits: 1</p> <p>PHYS 113 - General Physics I Credits: 4</p> <p>Quantitative Studies (9 credit hours) MATH 100 - College Algebra Credits: 3 MATH 150 - Plane Trigonometry Credits: 3 STAT 325 - Introduction to Statistics Credits: 3</p> <p>Integrative Human Ecology Course (1 credit hour) GNHE 210 - Foundations of Human Ecology Credits: 1</p> <p>Professional studies (41 credit hours)</p> <p><del>Health courses (26 credit hours)</del></p> <p>FNDH 115 - Introduction to Health and Nutrition Professions Credits: 2 FNDH 120 - Introduction to Athletic Training Credits: 2 FNDH 121 - Introduction to Athletic Training Lab Credits: 1 FNDH 132 - Basic Nutrition Credits: 3 FNDH 320 - Care and Prevention of Athletic Injuries Credits: 3 <del>FNDH 450 - Nutritional Assessment Credits: 2</del> FNDH 551 - Evaluation of Athletic Injuries of the Extremities Credits: 3 <del>FNDH 553 - Pharmacology in Athletic Training Credits: 2</del></p>	<p>and BIOL 342 - Human Body II Credits: 4 or</p> <p>KIN 360 - Anatomy and Physiology Credits: 8</p> <p>CHM 210 - Chemistry I Credits: 4 or CHM 110 - General Chemistry Credits: 3 and CHM 111 - General Chemistry Laboratory Credits: 1</p> <p>PHYS 113 - General Physics I Credits: 4</p> <p>Quantitative Studies (9 credit hours) MATH 100 - College Algebra Credits: 3 MATH 150 - Plane Trigonometry Credits: 3 STAT 325 - Introduction to Statistics Credits: 3</p> <p>Integrative Human Ecology Course (1 credit hour) GNHE 210 - Foundations of Human Ecology Credits: 1</p> <p>Professional studies (43 Credit Hours)</p> <p><u>Health, AT, Rehabilitation Courses (28 Credit Hours)</u></p> <p>FNDH 115 - Introduction to Health and Nutrition Professions Credits: 2 FNDH 120 - Introduction to Athletic Training Credits: 2 FNDH 121 - Introduction to Athletic Training Lab Credits: 1 FNDH 132 - Basic Nutrition Credits: 3 FNDH 320 - Care and Prevention of Athletic Injuries Credits: 3</p> <p><u>FNDH 321: Medical Documentation Credits 2</u> <u>FNDH 355: Rehabilitation and Ex Mod Tech I Credits:3</u> <u>FNDH 455: Rehabilitation and Ex Mod Tech II Credits: 3</u></p>
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<p><del>FNDH 554—General Medical Conditions in the Athlete Credits: 2</del>  FNDH 575 - Research Methods and Scientific Communication in Health Sciences Credits: 3  <del>FNDH 635—Nutrition and Exercise Credits: 3</del></p> <p>Kinesiology courses (12 credit hours)  KIN 220 - Biobehavioral Bases of Physical Activity Credits: 4  KIN 330 - Biomechanics Credits: 3  KIN 335 - Physiology of Exercise Credits: 4  KIN 336 - Physiology of Exercise Lab Credits: 1</p> <p>Supportive courses (3 credit hours)  GERON 315 - Introduction to Gerontology Credits: 3</p> <p>Unrestricted electives (25-26 credit hours)  (Only 100-799 level undergraduate courses may be applied)</p> <p>Total credit hours required for graduation (120)</p>	<p>FNDH 551 - Evaluation of Athletic Injuries of the Extremities Credits: 3  <b>FNDH 654 - Pathophysiology and Clinical Evaluation Credits: 3</b>  FNDH 575 - Research Methods and Scientific Communication in Health Sciences Credits: 3</p> <p>Kinesiology courses (12 credit hours)  KIN 220 – Bio-behavioral Bases of Physical Activity Credits: 4  KIN 330 - Biomechanics Credits: 3  KIN 335 - Physiology of Exercise Credits: 4  KIN 336 - Physiology of Exercise Lab Credits: 1</p> <p>Supportive courses (3 credit hours)  GERON 315 - Introduction to Gerontology Credits: 3</p> <p>Unrestricted electives (<b>23-24</b> credit hours)  (Only 100-799 level undergraduate courses may be applied)</p> <p>Total credit hours required for graduation (120)</p>
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## Gerontology Secondary Major

**Rationale:** The Center on Aging has administered a secondary major in gerontology since the late 1970s. The program has seen rapid growth in the last ten years from an average of about 40 students a year to as many as 230 students per year. The KSU Center on Aging has been a member of the Academy of Gerontology in Higher Education (AGHE) since about 1978. AGHE has listed a policy course as strongly recommended for gerontology students in their Core Competencies recommended for undergraduate and graduate gerontology programs. In the past, we have tried offering a Policy course as an elective but have been unable to get students to enroll, likely because it is difficult to make a policy class sound interesting. In recent years we been focusing specifically on the variety of careers available in gerontology and have realized that this course should be a priority for students who wish to work in aging services. We have collaborated and reorganized the course by using a variety of instructional resources to make the material more relevant to the students through hands on activities and guest speakers. We are adding a new three-credit hour course (GERON 510 Aging in America: Policy & Advocacy) to student requirements, but are also reducing by three hours the number of elective courses for this program. Making this change should not be a significant hardship for any students enrolled in our program. The new course proposal for GERON 510 was submitted in Curriculog concurrently with this proposal to go through the approval process.

FROM

Gerontology Secondary Major

Gerontology is available to all undergraduate students as a secondary major. It must be taken concurrently with a primary major of the student's choice in any college. Most programs of study will allow the student to take both a primary and secondary major within the normal four year academic program of his/her college.

The secondary major in gerontology is a 24-credit-hour program of study which includes ~~two~~ required courses and ~~18~~ credit hours of electives taken from a list of approved gerontology courses offered in departments across the university. Students must meet with the Center on Aging advisor to declare the secondary major in order for this emphasis to appear on their university transcripts. To ask about careers in the field of gerontology, schedule a student advising appointment and/or to review your progress toward completing the secondary major in gerontology, please contact Pam Evans at (785) 532-5945 or pevans@ksu.edu. All graduating students must complete a graduation clearance with Pam Evans the semester prior to graduation.

Required courses

GERON 315 - Introduction to Gerontology  
Credits: 3  
GERON 600 - Seminar in Gerontology Credits: 3

Elective courses (~~18~~ credit hours)

Additional courses may be approved for gerontology credit on a case-by-case basis by the Center on Aging Academic Affairs Committee. Courses listed in the gerontology course schedule on the Center on Aging website are approved as electives for the secondary major in gerontology.

CNRES 530 - Coping with Life Crises Credits: 3  
FNDH 132 - Basic Nutrition Credits: 3  
FNDH 352 - Personal Wellness Credits: 3

TO:

Gerontology Secondary Major

Gerontology is available to all undergraduate students as a secondary major. It must be taken concurrently with a primary major of the student's choice in any college. Most programs of study will allow the student to take both a primary and secondary major within the normal four year academic program of his/her college.

The secondary major in gerontology is a 24-credit-hour program of study which includes three required courses and 15 credit hours of electives taken from a list of approved gerontology courses offered in departments across the university. Students must meet with the Center on Aging advisor to declare the secondary major in order for this emphasis to appear on their university transcripts. To ask about careers in the field of gerontology, schedule a student advising appointment and/or to review your progress toward completing the secondary major in gerontology, please contact Pam Evans at (785) 532-5945 or pevans@ksu.edu. All graduating students must complete a graduation clearance with Pam Evans the semester prior to graduation.

Required courses

GERON 315 - Introduction to Gerontology  
Credits: 3  
GERON 600 - Seminar in Gerontology Credits: 3  
GERON 510 – Aging in America: Policy & Advocacy Credits: 3

Elective courses (15 credit hours)

Additional courses may be approved for gerontology credit on a case-by-case basis by the Center on Aging Academic Affairs Committee. Courses listed in the gerontology course schedule on the Center on Aging website are approved as electives for the secondary major in gerontology.

CNRES 530 - Coping with Life Crises Credits: 3  
FNDH 132 - Basic Nutrition Credits: 3  
FNDH 352 - Personal Wellness Credits: 3

<p>FNDH 400 - Human Nutrition Credits: 3  FNDH 510 - Life Span Nutrition Credits: 2  FNDH 718 - Physical Health and Aging Credits: 3  HDFS 510 - Human Development and Aging Credits: 3  HDFS 654 - Death and the Family Credits: 2-3  GERON 400 - Biogerontology Credits: 3  GERON 501 - Culture Change in Long-Term Care Credits: 1  GERON 502 - Measuring Change in Long-Term Care Credits: 1  GERON 503 - Creating Home in Long-Term Care Credits: 1  GERON 504 - Strengthening Staff in Long-Term Care Credits: 1  GERON 505 - Dining in Long-Term Care Credits: 1  GERON 506 - Activities in Long-Term Care Credits: 1  GERON 605 - Practicum in Gerontology Credits: 1-3  GERON 610 - Seminar in Long-Term Care Administration Credits: 3  GERON 615 - Long-Term Care Administration Internship Credits: 9  GERON 620 - Problems in Gerontology Credits: 1-3  GERON 630 - Mental Health &amp; Aging Credits: 3  GERON 700 - Gerontechnology Credits: 3  GERON 705 - Sexuality and Aging Credits: 3  GERON 710 - Creativity and Aging Credits: 3  GERON 715 - Aging Veterans Credits: 3  GERON 720 - Design for Aging in the Modern World Credits: 3  GERON 725 - Topics of Gerontology Credits: 2-3  HIST 520 - Death and Dying in History Credits: 3  HIST 534 - Social History of Medicine Credits: 3  HM 720 - Administration of Health Care Organizations Credits: 3  HORT 525 - Horticulture for Special Populations Credits: 3  ID 651 - Design for Supportive Environments Credits: 3  KIN 335 - Physiology of Exercise Credits: 4  PFP 764 - Estate Planning for Families Credits: 3</p>	<p>FNDH 400 - Human Nutrition Credits: 3  FNDH 510 - Life Span Nutrition Credits: 2  FNDH 718 - Physical Health and Aging Credits: 3  HDFS 510 - Human Development and Aging Credits: 3  HDFS 654 - Death and the Family Credits: 2-3  GERON 400 - Biogerontology Credits: 3  GERON 501 - Culture Change in Long-Term Care Credits: 1  GERON 502 - Measuring Change in Long-Term Care Credits: 1  GERON 503 - Creating Home in Long-Term Care Credits: 1  GERON 504 - Strengthening Staff in Long-Term Care Credits: 1  GERON 505 - Dining in Long-Term Care Credits: 1  GERON 506 - Activities in Long-Term Care Credits: 1  GERON 605 - Practicum in Gerontology Credits: 1-3  GERON 610 - Seminar in Long-Term Care Administration Credits: 3  GERON 615 - Long-Term Care Administration Internship Credits: 9  GERON 620 - Problems in Gerontology Credits: 1-3  GERON 630 - Mental Health &amp; Aging Credits: 3  GERON 700 - Gerontechnology Credits: 3  GERON 705 - Sexuality and Aging Credits: 3  GERON 710 - Creativity and Aging Credits: 3  GERON 715 - Aging Veterans Credits: 3  GERON 720 - Design for Aging in the Modern World Credits: 3  GERON 725 - Topics of Gerontology Credits: 2-3  HIST 520 - Death and Dying in History Credits: 3  HIST 534 - Social History of Medicine Credits: 3  HM 720 - Administration of Health Care Organizations Credits: 3  HORT 525 - Horticulture for Special Populations Credits: 3  ID 651 - Design for Supportive Environments Credits: 3  KIN 335 - Physiology of Exercise Credits: 4  PFP 764 - Estate Planning for Families Credits: 3</p>
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<p>PHILO 365 - Medical Ethics Credits: 3  PSYCH 518 - Introduction to Health  Psychology Credits: 3  PSYCH 520 - Life Span Personality  Development Credits: 3  PSYCH 715 - Psychology of Aging Credits: 3  SOCIO 535 - Population Dynamics Credits: 3  SOCIO 544 - Social Gerontology: An  Introduction to the Sociology of Aging Credits: 3  SOCWK 320 - Dynamics of Working with  Older Adults Credits: 3  THTRE 664 - Creative Drama Credits: 3  THTRE 665 - Drama Therapy with Special  Populations Credits: 3  THTRE 675 - Drama Therapy with Older  Adults Credits: 1-3</p> <p>Courses which require prior approval for credit as  a gerontology elective</p> <p>See the Center on Aging advisor for permission to  use these courses as an elective for the secondary  major in gerontology. Approval to use as an  elective must be received PRIOR to taking the  course.</p> <p>FNDH 650 - Practicum in Human Nutrition  Credits: 1-18  FSHS 300 - Problems in Family Studies and  Human Services Credits: 1-18  HDFS 580 - Human Development Family  Science Internship Credits: 8-9  FSHS 700 - Problems in Family Studies and  Human Services Credits: 1-18  FSHS 704 - Seminar in Family Studies and  Human Services Credits: 1-18  FSHS 708 - Topics in Family Studies and  Human Services Credits: 2-3  GWSS 500 - Topics in Gender, Women, and  Sexuality Studies Credits: 1-3  HM 475 - Internship in the Hospitality  Management Credits: 3  KIN 520 - Practicum in Fitness Settings  Credits: 1-3  KIN 606 - Topics in the Behavioral Basis of  Kinesiology Credits: 1-3  KIN 796 - Topics in Exercise Physiology  Credits: 3  SOCIO 500 - Sociological Perspectives on  Contemporary Issues Credits: 1-18  SOCWK 562 - Field Experience Credits: 10</p>	<p>PHILO 365 - Medical Ethics Credits: 3  PSYCH 518 - Introduction to Health  Psychology Credits: 3  PSYCH 520 - Life Span Personality  Development Credits: 3  PSYCH 715 - Psychology of Aging Credits: 3  SOCIO 535 - Population Dynamics Credits: 3  SOCIO 544 - Social Gerontology: An  Introduction to the Sociology of Aging Credits: 3  SOCWK 320 - Dynamics of Working with  Older Adults Credits: 3  THTRE 664 - Creative Drama Credits: 3  THTRE 665 - Drama Therapy with Special  Populations Credits: 3  THTRE 675 - Drama Therapy with Older  Adults Credits: 1-3</p> <p>Courses which require prior approval for credit as  a gerontology elective</p> <p>See the Center on Aging advisor for permission to  use these courses as an elective for the secondary  major in gerontology. Approval to use as an  elective must be received PRIOR to taking the  course.</p> <p>FNDH 650 - Practicum in Human Nutrition  Credits: 1-18  FSHS 300 - Problems in Family Studies and  Human Services Credits: 1-18  HDFS 580 - Human Development Family  Science Internship Credits: 8-9  FSHS 700 - Problems in Family Studies and  Human Services Credits: 1-18  FSHS 704 - Seminar in Family Studies and  Human Services Credits: 1-18  FSHS 708 - Topics in Family Studies and  Human Services Credits: 2-3  GWSS 500 - Topics in Gender, Women, and  Sexuality Studies Credits: 1-3  HM 475 - Internship in the Hospitality  Management Credits: 3  KIN 520 - Practicum in Fitness Settings Credits:  1-3  KIN 606 - Topics in the Behavioral Basis of  Kinesiology Credits: 1-3  KIN 796 - Topics in Exercise Physiology  Credits: 3  SOCIO 500 - Sociological Perspectives on  Contemporary Issues Credits: 1-18  SOCWK 562 - Field Experience Credits: 10</p>
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## Secondary Major in Gerontology/Emphasis in Long Term Care Administration

**Rationale:** The Center on Aging has administered a secondary major in gerontology/emphasis in long term care administration since the early 1980s. The KSU Center on Aging has been a member of the Academy of Gerontology in Higher Education (AGHE) since about 1978. AGHE has listed a policy course as strongly recommended for gerontology students in their Core Competencies recommended for undergraduate and graduate gerontology programs. In the past, we have tried offering a Policy course as an elective but have been unable to get students to enroll, likely because it is difficult to make a policy class sound interesting. In recent years we been focusing specifically on the variety of careers available in gerontology and have realized that this course should be a priority for students who wish to work in aging services. We have collaborated and reorganized the course by using a variety of instructional resources to make the material more relevant to the students through hands on activities and guest speakers. We are adding a new three-credit hour course (GERON 510 Aging in America: Policy & Advocacy) to student requirements, but are also reducing by three hours the number of elective courses for this program. Nursing homes are a highly regulated industry and students who plan to become nursing home administrators will find this new course to be a strong foundation for their future careers. Making this change should not be a significant hardship for any students enrolled in our program. The new course proposal for GERON 510 was submitted in Curriculog concurrently with this proposal to go through the approval process.

Impact statement: This change should have minimal impact on program enrollments or other programs. On August 12 department heads in the College of Health and Human Sciences were contacted about gerontology program changes. See attached statements of support. On August 14 KSU gerontology faculty whose departments have a course included in other gerontology programs were contacted via a Qualtrics survey. Of those who responded, the majority response was positive for all changes being made to the gerontology program.

Gerontology Secondary Major/Long-Term Care Administration Emphasis	Gerontology Secondary Major/Long-Term Care Administration Emphasis
<p>A student completing this emphasis in the secondary major in Gerontology will be eligible to take the licensing exams that are required for Adult Care Home Administrators in Kansas. The emphasis in long-term care administration requires courses that cover the Social Security Title XIX Core of Knowledge recommendations for administrator licensure as determined by state regulation. Courses may count for more than one area. The ten core areas include:</p> <ol style="list-style-type: none"> <li>1. Applicable standards of environmental health and safety</li> <li>2. Local health and safety regulations</li> <li>3. General administration</li> <li>4. Psychology of resident care</li> <li>5. Principles of medical care</li> <li>6. Personal and social care</li> </ol>	<p>A student completing this emphasis in the secondary major in Gerontology will be eligible to take the licensing exams that are required for Adult Care Home Administrators in Kansas. The emphasis in long-term care administration requires courses that cover the Social Security Title XIX Core of Knowledge recommendations for administrator licensure as determined by state regulation. Courses may count for more than one area. The ten core areas include:</p> <ol style="list-style-type: none"> <li>1. Applicable standards of environmental health and safety</li> <li>2. Local health and safety regulations</li> <li>3. General administration</li> <li>4. Psychology of resident care</li> <li>5. Principles of medical care</li> <li>6. Personal and social care</li> </ol>

<p>7. Therapeutic and supportive care/services in long-term care  8. Departmental organization and management  9. Community interrelationships  10. Electives</p> <p>Students must also complete a semester long, 600 hour internship in a Kansas-licensed adult care home, a long-term care unit of a Kansas-licensed hospital, or a combination of the two. Assisted living and residential health care facilities do not qualify. Enrollment in the internship is by permission only. Students must maintain an overall GPA of 2.5, and a GPA of 3.0 in gerontology courses to qualify for enrollment in GERON 615 Long-Term Care Administration Internship.</p> <p>Students who complete the emphasis in Long-Term Care Administration along with a Bachelors degree of their choice are eligible to take the Kansas Adult Care Home Administrator licensing exam. Students interested in this program must meet with an advisor in the Center on Aging.</p> <p>Students enrolled in the internship will complete an online module that corresponds with the internship. This module will include additional information from required knowledge areas for the licensing exam.</p> <p>Note: Individuals who have already completed a bachelor's degree may be enrolled in GERON 615 Long-Term Care Administration internship without completing the secondary major if they meet the following requirements:</p> <ul style="list-style-type: none"> <li>Demonstration of proficiency in management and accounting as gauged by career path</li> <li>Review of resume and transcripts by Center on Aging staff</li> </ul>	<p>7. Therapeutic and supportive care/services in long-term care  8. Departmental organization and management  9. Community interrelationships  10. Electives</p> <p>Students must also complete a semester long, 600 hour internship in a Kansas-licensed adult care home, a long-term care unit of a Kansas-licensed hospital, or a combination of the two. Assisted living and residential health care facilities do not qualify. Enrollment in the internship is by permission only. Students must maintain an overall GPA of 2.5, and a GPA of 3.0 in gerontology courses to qualify for enrollment in GERON 615 Long-Term Care Administration Internship.</p> <p>Students who complete the emphasis in Long-Term Care Administration along with a Bachelors degree of their choice are eligible to take the Kansas Adult Care Home Administrator licensing exam. Students interested in this program must meet with an advisor in the Center on Aging.</p> <p>Students enrolled in the internship will complete an online module that corresponds with the internship. This module will include additional information from required knowledge areas for the licensing exam.</p> <p>Note: Individuals who have already completed a bachelor's degree may be enrolled in GERON 615 Long-Term Care Administration internship without completing the secondary major if they meet the following requirements:</p> <ul style="list-style-type: none"> <li>Demonstration of proficiency in management and accounting as gauged by career path</li> <li>Review of resume and transcripts by Center on Aging staff</li> <li>Interview with Center on Aging Committee</li> </ul>
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<p>Interview with Center on Aging Committee</p> <p>Concurrent enrollment or enrollment prior to the internship in GERON 610, Seminar in Long-Term Care Administration is strongly encouraged.</p> <p>*Requirements (30 credit hours)</p> <p>ACCTG 231 - Accounting for Business Operations Credits: 3</p> <p>GERON 315 - Introduction to Gerontology Credits: 3</p> <p>GERON 600 - Seminar in Gerontology Credits: 3</p> <p>GERON 610 - Seminar in Long-Term Care Administration Credits: 3</p> <p>(taken prior to or concurrently with GERON 615)</p> <p>GERON 615 - Long-Term Care Administration Internship Credits: 9</p> <p>MANGT 420 - Principles of Management Credits: 3</p> <p><del>Six</del> credit hours of electives from the following list:</p> <p>HDFS 510 - Human Development and Aging Credits: 3</p> <p>HDFS 654 - Death and the Family Credits: 2-3</p> <p>GERON 501 - Culture Change in Long-Term Care Credits: 1</p> <p>GERON 502 - Measuring Change in Long-Term Care Credits: 1</p> <p>GERON 503 - Creating Home in Long-Term Care Credits: 1</p> <p>GERON 504 - Strengthening Staff in Long-Term Care Credits: 1</p> <p>GERON 505 - Dining in Long-Term Care Credits: 1</p> <p>GERON 506 - Activities in Long-Term Care Credits: 1</p> <p>GERON 630 - Mental Health &amp; Aging Credits: 3</p>	<p>Concurrent enrollment or enrollment prior to the internship in GERON 610, Seminar in Long-Term Care Administration is strongly encouraged.</p> <p>*Requirements (30 credit hours)</p> <p>ACCTG 231 - Accounting for Business Operations Credits: 3</p> <p>GERON 315 - Introduction to Gerontology Credits: 3</p> <p><u>GERON 510 - Aging in America: Policy &amp; Advocacy Credits: 3</u></p> <p>GERON 600 - Seminar in Gerontology Credits: 3</p> <p>GERON 610 - Seminar in Long-Term Care Administration Credits: 3</p> <p>(taken prior to or concurrently with GERON 615)</p> <p>GERON 615 - Long-Term Care Administration Internship Credits: 9</p> <p>MANGT 420 - Principles of Management Credits: 3</p> <p><u>Three</u> credit hours of electives from the following list:</p> <p>HDFS 510 - Human Development and Aging Credits: 3</p> <p>HDFS 654 - Death and the Family Credits: 2-3</p> <p>GERON 501 - Culture Change in Long-Term Care Credits: 1</p> <p>GERON 502 - Measuring Change in Long-Term Care Credits: 1</p> <p>GERON 503 - Creating Home in Long-Term Care Credits: 1</p> <p>GERON 504 - Strengthening Staff in Long-Term Care Credits: 1</p> <p>GERON 505 - Dining in Long-Term Care Credits: 1</p> <p>GERON 506 - Activities in Long-Term Care Credits: 1</p> <p>GERON 630 - Mental Health &amp; Aging Credits: 3</p>
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<p>GERON 700 - Gerontechnology Credits: 3  GERON 705 - Sexuality and Aging Credits: 3  GERON 710 - Creativity and Aging Credits: 3  GERON 715 - Aging Veterans Credits: 3  GERON 720 - Design for Aging in the Modern World Credits: 3  A leadership course approved by the Gerontology Advisor  Additional courses developed or approved by the Center on Aging director</p> <p>*Note</p> <p>*This program covers required content from the Core of Knowledge for Nursing Home Administrators as defined in K.A.R. 28-38-29, or the “domains of practice,” as defined in K.A.R. 28-38-29.</p>	<p>GERON 700 - Gerontechnology Credits: 3  GERON 705 - Sexuality and Aging Credits: 3  GERON 710 - Creativity and Aging Credits: 3  GERON 715 - Aging Veterans Credits: 3  GERON 720 - Design for Aging in the Modern World Credits: 3  A leadership course approved by the Gerontology Advisor  Additional courses developed or approved by the Center on Aging director</p> <p>*Note</p> <p>*This program covers required content from the Core of Knowledge for Nursing Home Administrators as defined in K.A.R. 28-38-29, or the “domains of practice,” as defined in K.A.R. 28-38-29.</p>
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## Olathe (School of Applied and Interdisciplinary Studies)

### **Professional Science Master's in Applied Science and Technology Biosciences**

<https://kstate.curriculog.com/proposal:3732/form>

**Rationale:** At its April 2016 meeting, the Kansas Board of Regents (KBOR) approved the Professional Science Master’s (PSM) Degree in Applied Science and Technology. In late Fall 2017, the then Associate Dean for Academic Affairs and Executive Education (Dr. Janice Barrow) was informed that KBOR had approved the program for only two focus areas: animal health and food safety. In January 2018 PSM supervisory committee members worked with Dean Carol Shanklin to honor those programs of study for students nearing completion of the degree, a few of whom had pursued an interest in technology. The supervisory committee members then required the remaining students to complete a capstone project related to animal health and/or food safety.

The confusion created by the PSM title, Applied Science and Technology, has affected both recruiting and retention efforts. Those who are employed in industries related to animal health or food safety find the title not descriptive of the expertise they have developed/want to develop. Moreover, the approved title, ‘Applied Science and Technology,’ is not descriptive of the PSM as approved by KBOR.

In an effort to more clearly communicate to students and employers the focus of the PSM, the Associate Dean for Academic Affairs (Dr. Jackie Spears) met with KBOR, the PSM Interdisciplinary Advisory Committee, and AAI faculty in Fall 2018 to explore a proposal to separate the current PSM into two PSMs—one in ‘The Animal Health Enterprise’ and one in ‘Food Security.’ The proposal to split the PSM into two degrees was then presented to the PSM External Advisory Board Program Development Committee in March 2019 and to the full PSM External Advisory Board in April 2019. The Board members voiced concerns regarding market size for the two separate PSMs. They recommended that two tracks (one in Animal Health and the other in Food Safety and Security) be created within a single PSM, renamed to better reflect the two tracks. The new title suggested was “Applied Biosciences.” AAI faculty approved the change in title by electronic ballot on May 17, 2019.

**Impact (i.e. if this impacts another unit) – Statement should include the date when the head of a unit was contacted, and the response or lack of:** Thirty courses have been added to offer a wider choice of electives from which students can choose. Twenty-seven are existing courses and three are new courses (AAI 843 *Regulatory Development of Animal Pharmaceuticals- FDA*, AAI 844 *Regulatory Development of Animal Pesticides- EPA* and AAI 845 *Regulatory Development of Animal Biologicals and Diagnostics- USDA*) currently moving through the approval process. The heads of the following units were contacted on June 25, 2019 by Dr. Jackie Spears to secure approval for adding their courses to the STEM electives listing for the PSM: Agricultural Economics, Anatomy and Physiology, Business Administration, Industrial and Manufacturing Systems Engineering, Kinesiology (due to cross-listing with MPH course) and the Master Studies of Public Health. Each unit approved the additions of their courses and those e-mails of support are included with the proposal as an attachment in Curriculog (<https://kstate.curriculog.com/proposal:3732/form>).

<p><b>Professional Science Master in Applied Science and Technology</b></p> <p>Offered by the K-State School of Applied and Interdisciplinary Studies (Olathe Campus), this 30-credit hour program combines education in multiple scientific disciplines, leadership and management, communication, information technology, public policy, finance and economics and creativity. The program is ideal for students seeking to build their technical and professional expertise needed for career advancement. After completion of the program, graduates will be able to 1) demonstrate advanced knowledge of one or more relevant STEM fields, 2) demonstrate oral and written communication skills in a professional STEM environment, 3) effectively analyze quantitative data for use across multiple science disciplines, 4) synthesize information from multiple disciplines to accurately identify problems and develop innovative solutions. The degree can be earned as a stand-alone program or by completing both the <u>Professional Interdisciplinary Sciences Graduate Certificate</u> and the <u>Professional Skills for STEM Practitioners Graduate Certificate</u> programs. Courses are offered online, face-to-face, and in combination. This program is recognized as a</p>	<p><b>Professional Science Master’s in Applied Biosciences</b></p> <p>Offered by the K-State School of Applied and Interdisciplinary Studies (Olathe Campus), this 30-credit hour program combines education in animal health and food safety and security with leadership and management skills. The program is ideal for students seeking to build the STEM and professional expertise needed for career advancement. All students take professional skills courses, a statistics course, and STEM courses in either the animal health track or food safety and security track. Students must select the track they wish to pursue at the time of admission. All students must also complete two capstone courses. After completion of the program, graduates will be able to 1) demonstrate advanced knowledge of one or more relevant STEM fields, 2) demonstrate oral and written communication skills in a professional STEM environment, 3) effectively analyze quantitative data for use across multiple science disciplines, 4) synthesize information from multiple disciplines to accurately identify problems and develop innovative solutions. Courses are offered online, face-to-face, and in combination. This program is recognized as a Professional Science Master’s (PSM) program, approved by the National PSM Office.</p>
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~~Professional Science Master's (PSM) program, approved by the National PSM Office.~~

### Core Courses (6)

AAI 801 - Interdisciplinary Process Credits: 3  
AAI 858 - Capstone Experience I Credits: 1  
AAI 859 - Capstone Experience II Credits: 2

**Please note: STEM and Professional Skills courses were moved to the new tracks. The yellow highlighted courses in the "To" column represent NEW courses being added.**

### STEM (15) (Switched order with Professional Skills)

#### Statistics Electives (3)

Statistics Electives – 3 credits selected from the following courses (or another graduate statistics course as approved by the student's supervisory committee):

STAT 701 - Fundamental Methods of Biostatistics Credits: 3  
STAT 703 - Introduction to Statistical Methods for the Sciences Credits: 3  
STAT 705 - Regression and Analysis of Variance Credits: 3

#### STEM Electives (12)

STEM Electives – 12 credits selected from the following courses (or graduate STEM courses within the disciplines indicated below, as approved by the student's supervisory committee):

AAI 795 - Topics in Applied and Interdisciplinary Studies Credits: 1-3  
AAI 870 - Seminar in Applied and Interdisciplinary Studies Credits: 1-6  
AAI 880 - Problems in Applied and Interdisciplinary Studies Credits: 1-6  
AAI 895 - Advanced Topics in Applied and Interdisciplinary Studies Credits: 1-6  
AAI 899 - Research in Applied and Interdisciplinary Studies. Credits: 1-6  
ASI 671 - Meat Selection and Utilization Credits: 2  
ASI 675 - Monogastric Nutrition Credits: 1  
ASI 678 - Equine Nutrition Credits: 1  
ASI 776 - Meat Industry Technology Credits: 3  
BAE 815 - Graduate Seminar in Agricultural Engineering Credits: 1  
BAE 820 - Topics in Agricultural Engineering Credits: 1-18  
DMP 710 - Introduction to One Health Credits: 2  
DMP 754 - Introduction to Epidemiology Credits: 3  
DMP 802 - Environmental Health Credits: 3  
DMP 844 - Global Health Issues Credits: 3  
DMP 870 - Pathobiology Seminar (MS) Credits: 1  
DMP 880 - Problems in Pathobiology (MS) Credits: 1-6  
DMP 888 - Globalization, Cooperation, & the Food Trade Credits: 1  
DMP 895 - Topics in Pathobiology (MS) Credits: 0-18  
FDSCI 600 - Food Microbiology Credits: 2  
FDSCI 601 - Food Microbiology Lab Credits: 2  
FDSCI 630 - Food Science Problems Credits: 0-18  
FDSCI 690 - Principles of HACCP and HARPC Credits: 3  
FDSCI 695 - Quality Assurance of Food Products Credits: 3  
FDSCI 961 - Graduate Problem in Food Science Credits: 1-18

### Core Courses (6)

AAI 801 - Interdisciplinary Process Credits: 3  
AAI 858 - Capstone Experience I Credits: 1  
AAI 859 - Capstone Experience II Credits: 2

### Professional Skills (9)

Professional Skills Electives – 9 credits selected from the following courses (or other graduate professional skills courses as approved by the student's supervisory committee):

AAI 795 - Topics in Applied and Interdisciplinary Studies Credits: 1-3  
AAI 840 - Regulatory Aspects of Drug and Vaccine Development in the Animal Health Industry Credits: 2  
AAI 842 - Strategies in the Stewardship of Licensed Pharmaceuticals and Biologics in Animal Health Credits: 2  
AAI 843 - Regulatory Development of Animal Pharmaceuticals – FDA Credits: 2  
AAI 844 - Regulatory Development of Animal Pesticides – EPA Credits: 2  
AAI 845 - Regulatory Development of Animal Biologics and Diagnostics – USDA Credits: 2  
AAI 870 - Seminar in Applied and Interdisciplinary Studies Credits: 1-6  
AAI 880 - Problems in Applied and Interdisciplinary Studies Credits: 1-6  
AAI 895 - Advanced Topics in Applied and Interdisciplinary Studies Credits: 1-6  
AAI 899 - Research in Applied and Interdisciplinary Studies. Credits: 1-6  
ACCTG 810 - Foundations of Accounting Credits: 3  
AGEC 710 - Comparative Food and Agriculture Systems Credits: 3  
AGEC 750 - Prob/Economics of Animal Health and Food Safety Credits: 3  
COT 703 - Project Management for Professionals Credits: 3  
COT 704 - Managerial Finances, Metrics, and Analytics Credits: 3  
COT 706 - Informatics and Technology Management Credits: 3  
DMP 815 - Multidisciplinary Thought and Presentation Credits: 3  
DMP 816 - Trade and Agricultural Health Credits: 2  
DMP 888 - Globalization, Cooperation, & the Food Trade Credits: 1  
EDACE 832 - Interpersonal and Intrapersonal Dynamics in Adult Learning and Leadership Credits: 3  
EDACE 834 - Leading Adults in a Globalized and Diverse World Credits: 3  
EDACE 835 – Develop. Teams & Adult Leaders Credits: 3  
EDACE 836 - Group Dynamics in Adult Learning and Leadership Credits: 3  
EDACE 886 - Seminars in Adult Learning and Leadership Credits: 1-18  
MANGT 810 - Operations and Supply Chain Management Credits: 3  
MANGT 880- Business Strategy Credits: 3

### STEM (15)

FNDH 841 - Consumer Research - Fundamentals Credits: 1  
FNDH 843 - Consumer Research - Qualitative Credits: 1  
FNDH 848 - Consumer Research – Quantitative Credits: 1  
HORT 725 - Postharvest Technology and Physiology of Horticultural Crops Credits: 3  
HORT 780 - Health-Promoting Phytochemicals: Fruits and Vegetables Credits: 2  
HORT 790 - Sustainable Agriculture Credits: 2  
HORT 791 - Urban Agriculture Credits: 2  
HORT 793 - Farm to Fork Produce Safety Credits: 2  
HORT 794 - Urban Food Systems Credits: 2  
HORT 795 - Urban Agriculture Study Tour Credits: 1

### Professional Skills (9)

Professional Skills Electives – 9 credits selected from the following courses (or other graduate professional skills courses as approved by the student’s supervisory committee):

AAI 795 - Topics in Applied and Interdisciplinary Studies Credits: 1-3  
AAI 840 - Regulatory Aspects of Drug and Vaccine Development in the Animal Health Industry Credits: 2  
AAI 870 - Seminar in Applied and Interdisciplinary Studies Credits: 1-6  
AAI 880 - Problems in Applied and Interdisciplinary Studies Credits: 1-6  
AAI 895 - Advanced Topics in Applied and Interdisciplinary Studies Credits: 1-6  
AAI 899 - Research in Applied and Interdisciplinary Studies. Credits: 1-6  
COT 703 - Project Management for Professionals Credits: 3  
COT 704 - Managerial Finances, Metrics, and Analytics Credits: 3  
COT 706 - Informatics and Technology Management Credits: 3  
DMP 815 - Multidisciplinary Thought and Presentation Credits: 3  
DMP 816 - Trade and Agricultural Health Credits: 2  
DMP 888 - Globalization, Cooperation, & the Food Trade Credits: 1  
EDACE 832 - Interpersonal and Intrapersonal Dynamics in Adult Learning and Leadership Credits: 3  
EDACE 834 - Leading Adults in a Globalized and Diverse World Credits: 3  
EDACE 835 – Develop. Teams & Adult Leaders Credits: 3  
EDACE 836 - Group Dynamics in Adult Learning and Leadership Credits: 3  
EDACE 886 - Seminars in Adult Learning and Leadership Credits: 1-18

Statistics Electives (3)  
Statistics Electives – 3 credits selected from the following courses (or another graduate statistics course as approved by the student’s supervisory committee):  
STAT 701 - Fundamental Methods of Biostatistics Credits: 3  
STAT 703 - Introduction to Statistical Methods for the Sciences Credits: 3  
STAT 705 - Regression and Analysis of Variance Credits: 3  
STAT 713 - Applied Linear Statistical Models Credits: 3  
STAT 720 - Design of Experimentation Credits: 3

### Students choose the remaining 12 credit hours of STEM electives from their chosen track:

#### Animal Health Track

The courses in the animal health track provide students with knowledge of diseases that affect animals, as well as the interconnections among animals, humans, and the environment. When paired with the professional skills courses, students will be prepared to lead and manage in commercial, governmental, or nonprofit organizations related to the animal health industry.

#### Animal Health Track- STEM Electives (12)

STEM Electives – 12 credits selected from the following courses (or graduate STEM courses within the disciplines indicated below, as approved by the student’s supervisory committee):  
AAI 795 - Topics in Applied and Interdisciplinary Studies Credits: 1-3  
AAI 840 - Regulatory Aspects of Drug and Vaccine Development in the Animal Health Industry Credits: 2  
AAI 841 - Strategies in Preclinical and Clinical Research for Regulatory Affairs in Animal Health Credits: 2  
AAI 843 Regulatory Development of Animal Pharmaceuticals – FDA Credits: 2  
AAI 844 Regulatory Development of Animal Pesticides – EPA Credits: 2  
AAI 845 - Regulatory Development of Animal Biologics and Diagnostics – USDA Credits: 2  
AAI 870 - Seminar in Applied and Interdisciplinary Studies Credits: 1-6  
AAI 880 - Problems in Applied and Interdisciplinary Studies Credits: 1-6  
AAI 895 - Advanced Topics in Applied and Interdisciplinary Studies Credits: 1-6  
AAI 899 - Research in Applied and Interdisciplinary Studies. Credits: 1-6  
AP 788 - Basic and Applied Pharmacokinetics Credits: 3  
AP 873 - Physiologically Based Pharmacokinetics Modeling Credits: 4  
AP 896 - Introduction to Responsible Conduct of Biomedical Research Credits: 2  
ASI 671 - Meat Selection and Utilization Credits: 2  
ASI 675 - Monogastric Nutrition Credits: 1  
ASI 678 - Equine Nutrition Credits: 1  
ASI 776 - Meat Industry Technology Credits: 3  
BAE 815 - Graduate Seminar in Agricultural Engineering Credits: 1  
BAE 820 - Topics in Agricultural Engineering Credits: 1-18  
DMP 710 - Introduction to One Health Credits: 2

DMP 754 - Introduction to Epidemiology Credits: 3  
DMP 770 - Emerging Diseases (3)  
DMP 802 - Environmental Health Credits: 3  
DMP 806 - Environmental Toxicology Credits: 2  
DMP 814 - Veterinary Bacteriology and Mycology Credits: 3  
DMP 822 - Veterinary Virology Credits: 3  
DMP 844 - Global Health Issues Credits: 3  
DMP 846 - Foundation of Biosecurity (3)  
DMP 850 - Immunology of Domestic Animals Credits: 3  
DMP 870 - Pathobiology Seminar (MS) Credits: 1  
DMP 880 - Problems in Pathobiology (MS) Credits: 1-6  
DMP 888 - Globalization, Cooperation, & the Food Trade Credits: 1  
DMP 893 – Principles of Biosafety and Biocontainment (3)  
DMP 895 - Topics in Pathobiology (MS) Credits: 0-18  
MPH 818 Social and Behavioral Bases of Public Health Credits: 3

Complimentary STEM Courses – a maximum of 6 credits (as part of the 12 STEM electives) can be selected from the following courses:

IMSE 605 - Advanced Industrial Management Credits: 3  
IMSE 802 - Advanced Topics in Industrial Engineering Credits: 1-3  
IMSE 806 - Engineering Project Management Credits: 3  
IMSE 991 - Multiple Criteria Decision Making Credits: 3

#### **Food Safety and Security Track**

The courses in the food safety and security track provide students with knowledge and skills in the areas of food science, food safety, horticulture, nutrition, and consumer science. When paired with the professional skills courses, students will be prepared to lead and manage in commercial, governmental, or nonprofit organizations related to the food industry.

#### **Food Safety and Security Track- STEM Electives (12)**

STEM Electives – 12 credits selected from the following courses (or graduate STEM courses within the disciplines indicated below, as approved by the student's supervisory committee):  
AAI 795 - Topics in Applied and Interdisciplinary Studies Credits: 1-3  
AAI 840 - Regulatory Aspects of Drug and Vaccine Development in the Animal Health Industry Credits: 2  
AAI 870 - Seminar in Applied and Interdisciplinary Studies Credits: 1-6  
AAI 880 - Problems in Applied and Interdisciplinary Studies Credits: 1-6  
AAI 895 - Advanced Topics in Applied and Interdisciplinary Studies Credits: 1-6  
AAI 899 - Research in Applied and Interdisciplinary Studies. Credits: 1-6  
ASI 671 - Meat Selection and Utilization Credits: 2  
ASI 776 - Meat Industry Technology Credits: 3  
BAE 815 - Graduate Seminar in Agricultural Engineering Credits: 1  
BAE 820 - Topics in Agricultural Engineering Credits: 1-18  
DMP 710 - Introduction to One Health Credits: 2  
DMP 754 - Introduction to Epidemiology Credits: 3  
DMP 802 - Environmental Health Credits: 3



	<p>DMP 844 - Global Health Issues Credits: 3  DMP 888 - Globalization, Cooperation, &amp; the Food Trade Credits: 1  FDSCI 600 - Food Microbiology Credits: 2  FDSCI 601 - Food Microbiology Lab Credits: 2  FDSCI 630 - Food Science Problems Credits: 0-18  FDSCI 690 - Principles of HACCP and HARPC Credits: 3  FDSCI 695 - Quality Assurance of Food Products Credits: 3  FDSCI 961 - Graduate Problem in Food Science Credits: 1-18  <u>FNDH 700 - Global Health and Nutrition Credits: 3</u>  <u>FNDH 701 - Sensory Analysis Credits: 3</u>  FNDH 841 - Consumer Research - Fundamentals Credits: 1  FNDH 843 - Consumer Research - Qualitative Credits: 1  <u>FNDH 844 - Nutritional Epidemiology Credits: 3</u>  <u>FNDH 846 - Consumer Research – International and Special Populations Credits: 1</u>  FNDH 848 - Consumer Research – Quantitative Credits: 1  <u>FNDH 881 - Seminar in Sensory Analysis and Consumer Behavior Credits: 1</u>  HORT 725 - Postharvest Technology and Physiology of Horticultural Crops Credits: 3  HORT 780 - Health-Promoting Phytochemicals: Fruits and Vegetables Credits: 2  HORT 790 - Sustainable Agriculture Credits: 2  HORT 791 - Urban Agriculture Credits: 2  HORT 793 - Farm to Fork Produce Safety Credits: 2  HORT 794 - Urban Food Systems Credits: 2  HORT 795 - Urban Agriculture Study Tour Credits: 1  <u>MPH 818 - Social and Behavioral Bases of Public Health Credits: 3</u></p> <p><u>Complimentary STEM Courses – a maximum of 6 credits (as part of the 12 STEM electives) can be selected from the following courses:</u>  <u>IMSE 605 - Advanced Industrial Management Credits: 3</u>  <u>IMSE 802 - Advanced Topics in Industrial Engineering Credits: 1-3</u>  <u>IMSE 806 - Engineering Project Management Credits: 3</u>  <u>IMSE 991 - Multiple Criteria Decision Making Credits: 3</u></p>
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## Professional Skills for STEM Practitioners Graduate Certificate (<https://kstate.curriculog.com/proposal:3738/form>)

**Rationale:** The Professional Skills for STEM Practitioners graduate certificate is currently designed as an additional credential for students completing the Professional Science Master's (PSM) degree. The certificate is not presently structured to be a stand-alone credential since students must complete the two PSM capstone courses to earn the certificate, which requires a supervisory committee. The proposed new structure allows certificate-only students to use AAI 795 as a substitute for the two PSM capstone courses. This change will enable non-PSM students to earn the certificate since they can complete a project in the topics course without convening a supervisory committee. The proposed certificate redesign is also flexible enough to allow certificate-only students to apply AAI 795 as either a professional skills or STEM course,

depending upon their project, if they later decide to pursue a PSM degree. Students, however, will not be allowed to use AAI 795 as a substitute for the two capstone courses in the PSM degree.

**Impact (i.e. if this impacts another unit) – Statement should include the date when the head of a unit was contacted, and the response or lack of:**

There will not be an impact on other departments since the proposal uses an AAI course as a substitute for two other AAI courses. Students in other degree programs, however, may now be able to earn the PSSP certificate.

<p><b>Professional Skills for STEM Practitioners Graduate Certificate</b></p> <p>Offered by the School of Applied and Interdisciplinary Studies (Olathe Campus) , this 15-credit program provides the management, communication and critical thinking skills necessary for professionals in leadership roles in science, technology, engineering and mathematics fields. After completion of the program, students will be able to 1) understand the basics of project or program management, 2) demonstrate appropriate oral and written communication skills in a professional environment, and 3) synthesize professional skills in order to accurately implement innovative solutions. Students will take 12 credits of interdisciplinary professional skills courses and three credits of capstone experience courses, which will provide opportunities to apply and integrate knowledge and methods to solve problems. Courses are offered online, face-to-face, and in combination.</p> <p><b><u>Required Courses (3 credits)</u></b> Provide courses required for each student in the major: AAI 858 - Capstone Experience I Credits: 1 AAI 859 - Capstone Experience II Credits: 2</p>	<p><b>Professional Skills for STEM Practitioners Graduate Certificate</b></p> <p>Offered by the School of Applied and Interdisciplinary Studies (Olathe Campus) , this 15-credit program provides the management, communication and critical thinking skills necessary for professionals in leadership roles in science, technology, engineering and mathematics fields. After completion of the program, students will be able to 1) understand the basics of project or program management, 2) demonstrate appropriate oral and written communication skills in a professional environment, and 3) synthesize professional skills in order to accurately implement innovative solutions. Students will take 12 credits of interdisciplinary professional skills courses and three credits of capstone experience courses which will provide opportunities to apply and integrate knowledge and methods to solve problems. Courses are offered online, face-to-face, and in combination.</p> <p><b><u>Required Courses (3 credits)</u></b> Provide courses required for each student in the major: AAI 858 - Capstone Experience I Credits: 1 <b>and</b> AAI 859 - Capstone Experience II Credits: 2  <b>or</b>  <b>AAI 795 –Topics in Applied and Interdisciplinary Studies Credits: 3</b></p>
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**Program Electives**

12 credits of electives selected from the following courses (or equivalent courses as approved by the student's supervisory committee):

- AAI 795 - Topics in Applied and Interdisciplinary Studies Credits: 1-3
- AAI 801 - Interdisciplinary Process Credits: 3
- AAI 840 - Regulatory Aspects of Drug and Vaccine Development in the Animal Health Industry Credits: 2
- AAI 870 - Seminar in Applied and Interdisciplinary Studies Credits: 1-6
- AAI 880 - Problems in Applied and Interdisciplinary Studies Credits: 1-6
- AAI 895 - Advanced Topics in Applied and Interdisciplinary Studies Credits: 1-6
- COT 703 - Project Management for Professionals Credits: 3
- COT 704 - Managerial Finances, Metrics, and Analytics Credits: 3
- COT 706 - Informatics and Technology Management Credits: 3
- DMP 815 - Multidisciplinary Thought and Presentation Credits: 3
- DMP 816 - Trade and Agricultural Health Credits: 2
- DMP 888 - Globalization, Cooperation, & the Food Trade Credits: 1
- EDACE 832 - Interpersonal and Intrapersonal Dynamics in Adult Learning and Leadership Credits: 3
- EDACE 834 - Leading Adults in a Globalized and Diverse World Credits: 3
- EDACE 835 - Developing Teams and Adult Leaders Credits: 3
- EDACE 836 - Group Dynamics in Adult Learning and Leadership Credits: 3

**Note: Only students in the Professional Science Master's program may enroll in AAI 858 and AAI 859 since both courses require a supervisory committee. Students may not use AAI 795 to fulfill the Professional Science Master's capstone requirement.**

**Program Electives**

12 credits of electives selected from the following courses (or equivalent courses as approved by the student's supervisory committee):

- AAI 795 - Topics in Applied and Interdisciplinary Studies Credits: 1-3
- AAI 801 - Interdisciplinary Process Credits: 3
- AAI 840 - Regulatory Aspects of Drug and Vaccine Development in the Animal Health Industry Credits: 2
- AAI 870 - Seminar in Applied and Interdisciplinary Studies Credits: 1-6
- AAI 880 - Problems in Applied and Interdisciplinary Studies Credits: 1-6
- AAI 895 - Advanced Topics in Applied and Interdisciplinary Studies Credits: 1-6
- COT 703 - Project Management for Professionals Credits: 3
- COT 704 - Managerial Finances, Metrics, and Analytics Credits: 3
- COT 706 - Informatics and Technology Management Credits: 3
- DMP 815 - Multidisciplinary Thought and Presentation Credits: 3
- DMP 816 - Trade and Agricultural Health Credits: 2
- DMP 888 - Globalization, Cooperation, & the Food Trade Credits: 1
- EDACE 832 - Interpersonal and Intrapersonal Dynamics in Adult Learning and Leadership Credits: 3
- EDACE 834 - Leading Adults in a Globalized and Diverse World Credits: 3
- EDACE 835 - Developing Teams and Adult Leaders Credits: 3
- EDACE 836 - Group Dynamics in Adult Learning and Leadership Credits: 3

EDACE 886 - Seminars in Adult Learning  
and Leadership Credits: 1-18

EDACE 886 - Seminars in Adult Learning  
and Leadership Credits: 1-18