<u>Attachment 1</u> Academic Affairs

Consent Agenda Information

College of Technology & Aviation – K-State Salina (3-8-13) Pages 2-7

College of Agriculture (3-14-13) Pages 8-52

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College of Technology & Aviation – K-State Salina (3-8-13)

NON-EXPEDITED COURSE PROPOSALS Courses Numbered 000-599

Department of Engineering Technology

- ADD: CMST 356. Motion Graphics Technology. (3) Fall. A continuation of previous digital media courses. Includes an exploration of the various tools and processes associated with creating digital video, animation, and motion graphics. Students have the opportunity to produce portfolio pieces. Pr.: CMST 336. K-State 8:
 - Aesthetic Interpretation
- **RATIONALE:** This upper-division course is needed to provide additional experience with digital media in a new degree program. K-State 8 Rationale: The course explores critical thinking and media literacy through analysis of digital media works of video, animation and motion graphics.
- **IMPACT:** Addition of this class does not impact any other department.
- **EFFECTIVE DATE:** Fall 2013.
- ADD: CMST 406. Social Media Technology. (3) Spring. A continuation of previous digital media courses. Includes an exploration of the social media aspects of producing and consuming digital media content; including blogging, podcasting, and vodcasting. Diversity of the human condition is emphasized. Students will develop and publish an online portfolio of their best digital media work. Pr.: CMST 336. K-State 8:
 - Aesthetic Interpretation
 - Human Diversity within the US
- **RATIONALE:** This upper-division course is needed to provide additional experience with digital media in a new degree program. K-State 8 Rationale: The course emphasizes diversity of the human condition expressed through social media. It explores critical thinking and media literacy through analysis of digital media weblogs, podcasts, and video podcasts.
- **IMPACT:** Addition of this class does not impact any other department.
- EFFECTIVE DATE: Fall 2013.
- ADD: CMST 456 Digital Media Senior Project. (3) Spring. Provides seniors with the capstone experience of developing a professional quality project in digital media. Students work individually or in teams to develop a significant project in their area of interest. Students are expected to apply the production techniques covered in previous digital media courses, write project documentation, and make verbal presentations. Whenever feasible, real-world projects are solicited from local businesses. Pr.: CMST 356 and senior standing. K-State 8:
 - Aesthetic Interpretation
- RATIONALE: This upper-division course is needed to provide additional experience with digital media

in a new degree program. K-State 8 Rationale: This course requires the student to produce a professional digital media product based on the customer's requirements.

- **IMPACT:** Addition of this class does not impact any other department.
- EFFECTIVE DATE: Fall 2013.
- ADD: ECET 335. Industrial Control Topics. (1) Spring. Study of the applications of electronic circuits and systems in industrial environments. Topics include control systems and devices, control system modeling and simulation. Coreq.: MET 382. K-State 8: None.
- **RATIONALE:** This course is an extension of MET 382 Industrial Control and Instrumentation. It is designed for ECET students to enhance and deepen their understanding of industrial control systems by adding topics not covered in MET 382. This course already has been offered in the past as a special topics course (ECET 499: Topics in Controls). A permanent course number is desired as it will be offered in the future.
- **IMPACT**: No impact on any other departments.
- EFFECTIVE DATE: Fall 2013.
- ADD: ECET 385. Programmable Logic Controllers. (3) Spring. Study of the applications of programmable logic controllers (PLCs) in industrial environments. Topics include hardware, wiring, configuration, programming, documentation, troubleshooting, and maintenance of PLC systems. Pr.: ECET 100. K-State 8:
 - Empirical and Quantitative Reasoning
- **RATIONALE:** This popular elective course has been offered in the past as a special topics course (ECET 499: PLC Topics). A permanent course number is desired as it will be offered in the future.
- **IMPACT**: No impact on any other departments.
- EFFECTIVE DATE: Fall 2013.

COURSE CHANGES Courses Numbered 000-599

Department of Engineering Technology

FROM:	 CMST 306. Digital Media II. (3) Fall. An intermediate course dealing with the elements and principles of digital communications working with industry standard software involved in video editing, audio editing, photo editing, vector drawing and page layout. Students have the opportunity to produce portfolio pieces. Pr.: CMST 216. K-State 8: Aesthetic Interpretation Empirical and Quantitative Reasoning 	
то:	 CMST <u>256</u>. Digital Media II. (3) Fall. An intermediate course dealing with the elements and principles of digital communications working with industry standard software involved in video editing, audio editing, photo editing, vector drawing and page layout. Students have the opportunity to produce portfolio pieces. Pr.: CMST 216. K-State 8: Aesthetic Interpretation Empirical and Quantitative Reasoning 	
RATIONALE:	A lower-division course number more accurately reflects the content and complexity of the course.	
IMPACT:	Changes to this class do not impact any other department.	
EFFECTIVE DATE:	Fall 2013.	

NON-EXPEDITED CURRICULUM CHANGES:

Department of Engineering Technology

Associate of Technology			
Electronic and computer engineering technology	Electronic and computer engineering technology		
option (AETA-EC)	option (AETA-EC)		
68 hours required for graduation	68 hours required for graduation		
Freshman	Freshman		
Fall semester (14 credit hours)	Fall semester (<u>16 credit hours</u>)		
ECET 100 Basic Electronics4	ECET 100 Basic Electronics4		
MATH 100 College Algebra3	ECET 250 Digital Logic4		
MATH 151 Applied Plane Trigonometry2	MATH 100 College Algebra3		
ENGL 100 Expository Writing I	ENGL 100 Expository Writing I		
COMM105 Public Speaking 1A2	COMM105 Public Speaking 1A2		
ETA 020 Engineering Technology Seminar0	ETA 020 Engineering Technology Seminar0		
5 5 5			
Spring semester (18 credit hours)	Spring semester (16 credit hours)		
ECET 101 Direct Current Circuits	ECET 101 Direct Current Circuits		
ECET 110 Semiconductor Electronics4	ECET 110 Semiconductor Electronics4		
MATH 220 Analytic Geometry and Calculus I4	CMST 103 Introduction to Program Design		
PHYS 113 General Physics I	MATH 151 Applied Plane Trigonometry		
CMST 103 Introduction to Program Design	CHEM 110 General Chemistry		
	CHEM 111 General Chemistry Lab.		
Sophomore	Sophomore		
Fall semester (18 credit hours)	Fall semester (18 credit hours)		
FCFT 201 Alternating Current Circuits	FCFT 201 Alternating Current Circuits		
ECET 210 Linear Circuit Applications 4	ECET 210 Linear Circuit Applications 4		
ECET 240 Electronics Manufacturing	ECET 240 Electronics Manufacturing		
ECET 250 Digital Logic	MATH 220 Analytic Geometry and Calculus I		
ENGL 302 Technical Writing 3	FNGL 302 Technical Writing 3		
g.	g.		
Spring semester (18 credit hours)	Spring semester (18 credit hours)		
CMST 250 Networking I 3	CMST 250 Networking I 3		
ECET 330 Industrial Controls 4	MET 382 Industrial Instrumentation and Controls 3		
ECET 350 Microprocessor Fundamentals 4	FCFT 335 Industrial Control Topics		
CHEM 110 General Chemistry 3	ECET 350 Microprocessor Fundamentals 4		
CHEM 111 General Chemistry Lab	PHYS 113 General Physics I 4		
Humanities/Social Science elective 3	Humanities/Social Science elective		

- **RATIONALE:** Changes in the arrangement of courses evens out the semester loading and distributes the content areas across the semesters. Use of the MET 382 plus ECET 335 instead of ECET 330 better utilizes departmental resources.
- **IMPACT:** No significant impact on other departments since the math and science courses are offered in the semesters assigned within this curriculum.

EFFECTIVE DATE: Fall 2013.

Department of Engineering Technology

Bachelor of Science	
Electronic and computer engineering technology	Electronic and computer engineering technology
option (BEIB-EC)	option (BEIB-EC)
128 nours required for graduation	128 nours required for graduation
Freshman	Freshman
Fall semester (14 credit hours)	Fall semester (16 credit hours)
ECET 100 Basic Electronics	ECET 100 Basic Electronics
MATH 100 College Algebra3	ECET 250 Digital Logic4
MATH 151 Applied Plane Trigonometry2	MATH 100 College Algebra3
ENGL 100 Expository Writing I	ENGL 100 Expository Writing I
COMM105 Public Speaking 1A2	COMM105 Public Speaking 1A2
ETA 020 Engineering Technology Seminar0	ETA 020 Engineering Technology Seminar0
Spring somostor (18 gradit bours)	Spring competer (16 credit hours)
ECET 101 Direct Current Circuite	ECET 101 Direct Current Circuite
ECET 101 Direct Current Circuits	ECET 110 Semiconductor Electronico
MATH 220 Apolytic Coometry and Calculus L	CMST 102 Introduction to Program Docign
PHVS 112 Conoral Develoc I	MATH 151 Applied Plane Trigenemetry
CMST 102 Introduction to Program Decign 2	CHEM 110 Conoral Chemistry
CIVIST TOS Introduction to Program Design	CHEM 111 Conoral Chemistry Lab
Sophomore	Sophomore
Fall semester (18 credit hours)	Fall semester (18 credit hours)
ECET 201 Alternating Current Circuits4	ECET 201 Alternating Current Circuits4
ECET 210 Linear Circuit Applications4	ECET 210 Linear Circuit Applications4
ECET 240 Electronics Manufacturing	ECET 240 Electronics Manufacturing
ECET 250 Digital Logic4	MATH 220 Analytic Geometry and Calculus I4
ENGL 302 Technical Writing3	ENGL 302 Technical Writing3
Spring semester (18 credit hours)	Spring semester (18 credit bours)
CMST 250 Networking I	CMST 250 Networking I
ECET 330 Industrial Controls	MET 382 Industrial Instrumentation and Controls 3
ECET 350 Microprocessor Eundamentals	ECET 335 Industrial Control Topics
CHEM 110 General Chemistry 3	ECET 350 Microprocessor Fundamentals
CHEM 111 Conoral Chemistry Lab 1	PHYS 113 General Physics I
Humanities/Social Science elective 3	Humanities/Social Science elective 3
Junior	Junior
Fall semester (14 credit hours)	Fall semester (14 credit hours)
CMST 302 Applications for C in Engineering	CMST 302 Applications for C in Engineering

3
3
4
3

Spring semester (17 credit hours)

BUS 315 Supervisory Management	3
ECET 320 Electronic Communications Systems	4
ENGL 200 Expository Writing II	3
Humanities/Social Science elective	3
Science elective with lab	4

Senior

Fall semester (14 credit hours)

ECET 430 Network Analysis	3
ECET 450 Digital Systems and Computer	
Architecture	4
ECET 480 Electronics Design I	1
Humanities/Social Science elective	3
Technical elective	3

Senior

Sen	IOr			
Fall	semester	(14	credit	hours)

Spring semester (17 credit hours)

ECET 430 Network Analysis3	
ECET 450 Digital Systems and Computer	
Architecture4	
ECET 480 Electronics Design I1	
Humanities/Social Science elective	
Technical elective3	

ECET 352 Digital Circuits and Systems......4

MATH 221 Analytical Geometry and Calculus II3

ECET 320 Electronic Communications Systems4 Science elective with lab......4

Spring semester (15 credit hours) ECET 420 Communications Circuits Design	Spring semester (15 credit hours) ECET 420 Communications Circuits Design
* Marked electives must be upper division courses, 300 and above.	* Marked electives must be upper division courses, 300 and above.

- **RATIONALE:** Changes in the arrangement of courses evens out the semester loading and distributes the content areas across the semesters. Use of the MET 382 plus ECET 335 instead of ECET 330 better utilizes departmental resources. The Bachelor's degree option is an extension of the Associate's degree option and therefore requires the same class changes in the Freshman and Sophomore semesters.
- **IMPACT:** No significant impact on other departments since the math and science courses are offered in the semesters assigned within this curriculum .

EFFECTIVE DATE: Fall 2013.

<u>College of Agriculture (3-14-13)</u>

Non-expedited Course Changes (599 and below)

Agronomy

ADD:	AGRON 101. Agronomy Orientation. (1). I. Introduction to agronomy options, activities, resources, and careers. Required of all freshmen in agronomy at K-State. One hour lecture per week. K-State 8: None.
RATIONALE:	The course is required for new freshmen in the fall semester entering Agronomy to support incoming students' transition to the Department of Agronomy in the College of Agriculture at Kansas State University.
IMPACT:	No impact on other departments.

EFFECTIVE DATE: Fall 2013

Animal Science & Industry

FROM:	ASI 320. Principles of Feeding. (3) I, II. Application of basic nutrition principles to the feeding of beef cattle, sheep, and swine; feedstuff evaluation; nutrient requirements; ration formulation and practical feeding problems. Two hours of lecture and 2 hours of lab a week. Rec. Pr. ASI 318.
TO:	ASI 320. Principles of Feeding. (3) I, II. Application of basic nutrition principles to the feeding of beef cattle, sheep, and swine; feedstuff evaluation; nutrient requirements; ration formulation and practical feeding problems. Two hours of lecture and 2 hours of lab a week. <u>Pr. MATH 100</u> Rec. Pr. ASI 318.
RATIONALE:	A large portion of ASI 320 requires students to work with feed values and animal nutrient requirements to formulate rations using algebra. Therefore, the addition of MATH 100 as a prerequisite will help ensure students are prepared for the material presented in this course. Math 100 is already a required course for the ASI curriculum.
IMPACT:	No impact. MATH 100 is already required for all of our majors so this should have no impact on other departments.
EFFECTIVE DATE:	Fall 2013

ADD: ASI 330. Introduction to the Graduate Experience. (1) II. Exploration and exposure to graduate studies in animal science by undergraduate students. Participation in data collection, laboratory analysis, scientific article evaluation and research group meetings. One hour recitation per week. Pr. Consent of Instructor.

- RATIONALE: The purpose of the course is to encourage students to explore opportunities in research in animal sciences. This course will offer students insight into the life of a graduate student (e.g. hands-on research, reading and discussing journal articles, attending departmental seminars, scientific meetings) provide information about graduate studies as a post-graduation option.
- IMPACT: No impact on other departments.

EFFECTIVE DATE: Fall 2013

- ADD: ASI 561. Undergraduate Research in Animal Sciences & Industry. (0-3) I, II. Mentored undergraduate research experience in animal or food sciences. Pr. Consent of Instructor.
- RATIONALE: This course is for any student participating in research. This could range from helping with a graduate student project to leading an independent study. The course is for variable credit, which will be dependent on the student's involvement in the project and how this will fit into the student's degree plan. Students taking this course for credit will be expected to submit a proposal prior to their research experience and following completion of the project prepare an abstract and oral presentation for the Undergraduate Research Symposium. This course will show on student transcripts with a special title describing the research conducted.
- IMPACT: No impact on other departments.

EFFECTIVE DATE: Fall 2013

Food Science & Industry

- ADD: FDSCI 330. Introduction to the Graduate Experience. (1) II. Exploration and exposure to graduate studies in food science by undergraduate students. Participation in data collection, laboratory analysis, scientific article evaluation and research group meetings. One hour recitation per week. Pr. Consent of Instructor.
- RATIONALE: The purpose of the course is to encourage students to explore opportunities in research in food science. This course will offer students insight into the life of a graduate student (e.g. hands-on research, reading and discussing journal articles, attending departmental seminars, scientific meetings) provide information about graduate studies as a post-graduation option.

IMPACT: No impact on other departments.

EFFECTIVE DATE: Fall 2013

ADD: FDSCI 530. Undergraduate Research in Food Science & Industry. (0-3) I, II. Mentored undergraduate research experience in animal or food sciences. Pr. Consent of Instructor.

- RATIONALE: This course is for any student participating in research. This could range from helping with a graduate student project to leading an independent study. The course is for variable credit, which will be dependent on the student's involvement in the project and how this will fit into the student's degree plan. Students taking this course for credit will be expected to submit a proposal prior to their research experience and following completion of the project prepare an abstract and oral presentation for the Undergraduate Research Symposium. This course will show on student transcripts with a special title describing the research conducted.
- IMPACT: No impact on other departments.

EFFECTIVE DATE: Fall 2013

CURRICULUM CHANGES

Undergraduate Curriculum Changes

Communications and Agricultural Education

B.S. in Agricultural Communications and Journalism: Agriculture Option

FROM:	TO:		
General Requirements Sem.	Cr.	General Requirements	Sem. Cr.
ENGL100 Expos Writ I	3	ENGL 100 Expos Writ I	3
ENGL200 Expos Writ II	3	ENGL 200 Expos Writ II	3
COMM105 Pub Speak IA	2	COMM 105 Pub Speak IA	2
MATH100 Coll Algebra	3	MATH 100 Coll Algebra	3
ECON110 Macroecon.	3	ECON 110 Macroecon.	3
CHEM210 Chemistry I OR	4	CHEM 210 Chemistry I OR	4
CHEM110 Gen Chem	3	CHEM 110 Gen Chem	3
CHEM111 Chem Lab	1	CHEM 111 Chem Lab	1
TOTAL HRS. 18		TOTAL HRS. 18	
Humanities and/or Social Sciences		Humanities and/or Social Sciences	s
TOTAL HRS. 12		TOTAL HRS. 12	
Business Administration & Ag Econ . MKTG 400 Intro to Marketing AND	3	Business Administration & Ag Ec MKTG 400 Intro to Marketing AND	on . 3
MANGT420 Management Concepts OR	3	MANGT 420 Management Concept OR	ts 3
(from bus or ag econ) Business or Ag Econ elective – ACCTG 231 TO 799; AGEC 308, 315, 318, 410 TO 712; ECON 300 TO 799; FINAN 250 TO 799; MANGT 366 TO 799; MKTG 450 TO 799 TOTAL HRS. 6		(from bus or ag econ) Business or Ag Econ elective – AC 308, 315, 318, 410 TO 712; ECON TO 799; MANGT 366 TO 799; ME TOTAL HRS. 6	CCTG 231 TO 799; AGEC 300 TO 799; FINAN 250 KTG 450 TO 799
Journalism/Mass Comm core		Journalism/Mass Comm core	
Required Courses:		Required Courses:	
MC110 Mass Comm Soc	3	MC 110 Mass Comm Soc	3
MC200 News/Feat Writ	3	MC 200 News/Feat Writ	3
MC241 Editing	3	MC 241 Editing	3
MC466 Law Mass Comm	3	MC 466 Law Mass Comm	3
Advanced Writing (choose ONE of the following)		Advanced Writing (choose ONE of the following)	
MC303 Adv N/F Writing	3	MC 303 Adv N/F Writing	3
MC221 Advertising Strategy Writing	3	MC 221 Advertising Strategy Writin	ng 3
MC 280 PR Writing	3	MC 280 PR Writing	3
TOTAL HRS. 15		TOTAL HRS. 15	

Physical Science 3		Physical Science 3	
MUST COME FROM THIS LIST AGRON 335; BIOCH 110,265,521; CHM 230,350, 531; GEOG 221,340,508,720,725,730; GEOL 100,105,115,125,506		MUST COME FROM THIS LIST AGRON 335; BIOCH 110, 265, 521; CHM 230, 350, 531; GEOG 221, 340, 508, 720, 725, 730; GEOL 100, <u>102</u> , 105, 115, 125, 506	
TOTAL HRS. 3		TOTAL HRS. 3	
BioscienceBIOL198 Prin Biology4AND Bioscience elective3MUST COME FROM THIS LIST ASI 500, BI330, 455, 510, 529TOTAL HRS.7	OL 201, 303,	BioscienceBIOL 198 Prin Biology4AND Bioscience elective3MUST COME FROM THIS LIST ASI 500, BIOL 201, 303,330, 455, 510, 529TOTAL HRS.7	
Statistics or Research		Statistics or Research	
MUST COME FROM THIS LIST STAT 325,3 MC396, POLSC400, AGCOM425	340,350,	3 MUST COME FROM THIS LIST STAT 325, 340, 350, MC 396, POLSC 400, AGCOM 425	
TOTAL HRS. 3		TOTAL HRS. 3	
Agricultural Communications CoreAGCOM 110: Intro to AgCom2AGCOM 210: Ag Layout & Print Techniques3AGCOM 405: Capstone Seminar3AGCOM 410: Ag Mag3AGCOM 550: Internship1AGCOM 590: New Media Technologies3OR AGCOM 610: Crisis Communications3		Agricultural Communications CoreAGCOM 110: Intro to AgCom2AGCOM 210: Ag Layout & Print Techniques3AGCOM 405: Capstone Seminar3AGCOM 410: Ag Mag3AGCOM 550: Internship1AGCOM 590: New Media Technologies3OR AGCOM 610: Crisis Communications3	
Journalism and Agricultural Communications Ele more hours)	ectives (9 or	Journalism and Agricultural Communications Electives (9 or more hours)	
Agriculture Requirements (Not in AgCom) (24 or more hours)		Agriculture Requirements (Not in AgCom) (24 or more hours)	
Introductory courses (four courses)		Introductory courses (four courses)	
Introductory Ag courses – AGEC 120; AGROM HORT 201; AGRON 305; ASI 102 OR 350, ATI 350; ENTOM 300, 301,305,312,320; FDSCI 302 330, 375; GSI 101; HORT 256; PLPTH 500	N 220 OR M 160;BAE 2; FOR 285,	Introductory Ag courses – AGEC 120; AGRON 220 OR HORT 201; AGRON 305; ASI 102 OR 350, ATM 160; BAE 350; ENTOM 300, 301, 305, 312, 320; FDSCI 302; FOR 285, 330, 375; GSI 101; HORT 256; PLPTH 500	
Specialization Two courses above introductory level in one agric Agricultural electives (to reach 24 hrs)	cultural area.	Specialization Two courses above introductory level in one agricultural area. Agricultural electives (to reach 24 hrs)	
Free Electives (to reach 127 for curriculum)		Free Electives (to reach 127 for curriculum)	

RATIONALE:	GEOL 100: Earth In Action is accepted as a physical science in the current
	curriculum. Adding an additional option of GEOL 102: Earth Through Time will
	allow students more diversity in their physical science options. This will allow for
	flexibility for students when scheduling, while remaining true to the intent of a
	physical science requirement. GEOL 102 will also provide students with
	introductory knowledge about physical science related to geology. The proposed
	change will not change the number of credit hours.

IMPACT:No impact is expected to other departments due to the large number of options
students have when selecting a physical science elective.

EFFECTIVE DATE: Fall 2013

B.S. in Agricultural Communications and Journalism: Environment Option

FROM:	TO:		
General Requirements Sem.	Cr.	General Requirements Sem.	Cr.
ENGL100 Expos Writ I	3	ENGL 100 Expos Writ I	3
ENGL200 Expos Writ II	3	ENGL 200 Expos Writ II	3
COMM105 Pub Speak IA	2	COMM 105 Pub Speak IA	2
MATH100 Coll Algebra	3	MATH 100 Coll Algebra	3
ECON110 Macroecon.	3	ECON 110 Macroecon.	3
CHEM210 Chemistry I	4	CHEM 210 Chemistry I	4
OR		OR	
CHEM110 Gen Chem	3	CHEM 110 Gen Chem	3
AND		AND	
CHEM111 Chem Lab	1	CHEM 111 Chem Lab	1
TOTAL HRS. 18		TOTAL HRS. 18	
Humanities and/or Social Sciences		Humanities and/or Social Sciences	
(12 or more hours 6 hours from list)			
Humanities/Social Sciences - ECON 527	, ENGL 680; GEOG	TOTAL HRS. 12	
340,718,720, 725,730,760,765,770; HIST	-511,563; LAR		
646,758, PHILO 595; PLAN 315; SOCIO	- 536		
TOTAL HRS. 12			
Business Administration & Ag Econ.		Business Administration & Ag Econ.	
MKTG 400 Intro to Marketing	3	MKTG 400 Intro to Marketing	3
6		C C	
AND		AND	
MANGT420 Management Concepts	3	MANGT 420 Management Concepts	3
OR		OR	
(from bus or ag econ)		(from bus or ag econ)	
Business or Ag Econ elective – ACCTG	231 TO 799; AGEC	Business or Ag Econ elective – ACCTG	231 TO 799; AGEC
308, 315, 318, 410 TO 712; ECON 300 T	O 799; FINAN 250	308, 315, 318, 410 TO 712; ECON 300 TO	O 799; FINAN 250
TO 799; MANGT 366 TO 799; MKTG 4	50 TO 799	TO 799; MANGT 366 TO 799; MKTG 45	50 TO 799

TOTAL HRS. 6	TOTAL HRS. 6
Journalism/Mass Comm core	Journalism/Mass Comm core
Required Courses:	Required Courses:
MC110 Mass Comm Soc 3	MC 110 Mass Comm Soc 3
MC200 News/Feat Writ 3	MC 200 News/Feat Writ 3
MC241 Editing 3	MC 241 Editing 3
MC466 Law Mass Comm 3	MC 466 Law Mass Comm 3
$\mathbf{A} = \mathbf{A} + $	$\mathbf{A} = \{\mathbf{A} \in \{\mathbf{A}\}, \{\mathbf{A}$
Advanced Writing (choose ONE of the following)	Advanced Writing (choose ONE of the following)
MC303 Adv N/F wfit 3	MC 303 Adv N/F write 3
MC221 Advertising Strategy writing 3	MC 221 Advertising Strategy writing 3
MC280 PK whung 3	MC 280 PR writing 5
TOTAL HPS 15	TOTAL HPS 15
TOTAL IIKS. 15	TOTAL TIKS. 15
Physical Science 3	Physical Science 3
(from list)	(from list)
Physical Science – AGRON 335: BIOCH 110.265.521: CHM	Physical Science – AGRON 335: BIOCH 110, 265, 521:
230.350, 531: GEOG 221.340.508.720.725.730: GEOL	CHM 230, 350, 531; GEOG 221, 340, 508, 720, 725, 730;
100.105. 115.125.506	GEOL 100, 102, 105, 115, 125, 506
TOTAL HRS. 3	TOTAL HRS. 3
Bioscience	Bioscience
BIOL198 Prin Biology 4	BIOL198 Prin Biology 4
BIOL303 Ecol. Env. Prob 3	BIOL303 Ecol. Env. Prob 3
TOTAL HRS. 7	TOTAL HRS. 7
Physics	Physics
PHYS 113 Gen Physics	PHYS 113 Gen Physics
OR PHYS 115 Descriptive Physics	OR PHYS 115 Descriptive Physics
OR PHYS 101& 103 Physical World/Lab	OR PHYS 101& 103 Physical World/Lab
IUIAL HKS. 4	IUIAL HKS. 4
Statistics or Research 3	Statistics or Research 3
(from list)	(from list)
Statistics or Research – STAT 325 340 350 MC396	Statistics or Research – STAT 325–340–350 MC 396
POLSC400 AGCOM425	POLSC 400 AGCOM 425 RRES 635
10150100, 1100011125	10150 100, 1100010 125, <u>IAALS 055</u>
TOTAL HRS. 3	TOTAL HRS. 3
Agricultural Communications Core	Agricultural Communications Core
AGCOM 110: Intro to AgCom 2	AGCOM 110: Intro to AgCom 2
AGCOM 210: Ag Layout & Print Techniques 3	AGCOM 210: Ag Layout & Print Techniques 3
AGCOM 405: Capstone Seminar 3	AGCOM 405: Capstone Seminar 3
AGCOM 550: Internship 1	AGCOM 550: Internship 1
AGCOM 712: Env Comm 3	AGCOM 712: Env Comm 3
AGCOM 590: New Media Technologies 3	AGCOM 590: New Media Technologies 3
OR AGCOM 610: Crisis Communications 3	OR AGCOM 610: Crisis Communications 3
TOTAL HRS. 15	TOTAL HRS. 15

Journalism and Agricultural Communications Electives (9 OR MORE hours)	Journalism and Agricultural Communications Electives (9 OR MORE hours)
Agriculture/NR Requirements (outside of AgCom) (24 or more hours)	Agriculture/NR Requirements (outside of AgCom) (24 or more hours)
Introductory courses (four courses)AGEC120 AgEcon/Agbus3AGRON 305 Soils4FOR375 Intro NR Mgmt OR3FOR285 For Res Mgmt	Natural Resource SpecializationAGEC120 AgEcon/Agbus3AGRON 305 Soils4FOR375 Intro NR Mgmt OR3FOR285 For Res Mgmt
Introductory Ag courses – AGRON 220 OR HORT 201; AGRON 305;ASI 102; ATM 160; ENTOM 300,301,305,312, 313,320; FDSCI 302; FOR 285,330, 375; HORT 256; PLPTH 300,500; RRES 210	<u>3-4 hours from this list</u> – AGRON 220 OR HORT 201; AGRON 305; ASI 102; ATM 160; ENTOM 300, 301, 305, 312, 313, 320; FDSCI 302; FOR 285, 330, 375; HORT 256; PLPTH 300, 500; RRES 210
Specialization Two courses above introductory level in one agricultural area.	
AGEC525 NR/Env Econ3NRES Capstone3	AGEC 525 NR/Env Econ3NRES Capstone3
Ag/NR electives (to complete 24 hrs) See list AG/NR electives – AGRON 330,335, 501,515,635,645,746; ATM 558, 653,661; ENTOM 680,692; RRES 575,635, 640, Free Electives (to reach 127 for curriculum)	Ag/NR electives (to complete 24 hrs) See list AG/NR electives – AGRON 330,335, <u>375</u> 501,515,635,645, <u>646</u> , <u>655</u> , 746; ATM 558, 653,661; ENTOM <u>301,312, 313</u> , 680, 692; RRES 575, 635, 640 Free Electives (to reach 127 for curriculum)

RATIONALE: This curriculum change is designed to offer more flexibility for students seeking the environmental option while still meeting the requirements of the Natural Resources and Environmental Sciences (NRES) secondary major. While the Ag Communications Environmental option has historically and will continue to include the requirements for the NRES secondary major, the department proposes doing so without restricting electives in Humanities or Social Sciences.

These restricted H/SS electives limit what courses can be used when students transfer into this option. The H/SS component of the NRES secondary major is still met through other courses that are required in the environmental option. The proposed change is to allow any college-approved humanities or social sciences course in this category, which would also include humanities or social science courses that are a part of the NRES curriculum.

The proposed change to the new section "natural resource specialization" is primarily to eliminate confusion by combining the introductory and specialization into one specialization category, since in the environmental option these courses are all a part of the specialization. Within this section, there are proposed changes related to the addition of courses accepted under the restricted electives list. These additions are all courses within the college that also appear on the NRES options.

Adding RRES 635 - Methods of Environmental Interpretation as an option of restricted electives under the research or statistics section offers students one more option for an interpretative analysis course. In this case the course relates specifically to environmental communication and public understanding of the environment; the course also can be used as a part of the NRES secondary major.

GEOL 100: Earth In Action is accepted as a physical science in the current curriculum. Adding an additional option of GEOL 102: Earth Through Time will allow students more diversity in their physical science options. This will allow for flexibility for students when scheduling, while remaining true to the intent of a physical science requirement. GEOL 102 will also provide students with introductory knowledge about physical science related to geology.

These proposed changes will not change the number of credit hours.

IMPACT: No impact is expected to other departments due to the large number of options students have when selecting any of the restricted elective changes proposed and the relatively small enrollment in the environmental option.

EFFECTIVE DATE: Fall 2013

Agronomy

B.S. in Agriculture: Agronomy - Business and Industry Option

FROM:	TO:
AGRONOMY (31-32):	AGRONOMY (<u>32-33</u>):
AGRON 220 Crop Science (4)	AGRON 101 Agronomy Orientation (1)
AGRON 305 Soils (4)	AGRON 220 Crop Science (4)
AGRON 330 Weed Science (3)	AGRON 305 Soils (4)
AGRON 360 Crop Growth & Development (3)	AGRON 330 Weed Science (3)
AGRON 375 Soil Fertility (3)	AGRON 360 Crop Growth & Development (3)
AGRON 405 Internship in Agronomy (3)	AGRON 375 Soil Fertility (3)
AGRON Electives (11-12)	AGRON 405 Internship in Agronomy (3)
	AGRON 602 Agronomy Capstone Experience (3)
	AGRON Electives (8-9)
COMM/SOC. SCI./HUMAN./ECON/BUS (38)	COMM/SOC. SCI./HUMAN./ECON/BUS (38)
ECON 110 Prin. Macroeconomics (3)	ECON 110 Prin. Macroeconomics (3)
ENGL 100 Expository Writing I (3)	ENGL 100 Expository Writing I (3)
ENGL 200 Expository Writing II (3)	ENGL 200 Expository Writing II (3)
COMM 105 Public Speaking I (2)	COMM 105 Public Speaking I (2)
ACCTG 231 Acct. for Business Oper. (3)	ACCTG 231 Acct. for Business Oper. (3)
Communications Elective (3)	Communications Elective (3)
Social Sci./Humanities Electives (9)	Social Sci./Humanities Electives (9)
Ag Econ & Ag Bus/Bus Admin Electives (12)	Ag Econ & Ag Bus/Bus Admin Electives (12)
GENERAL ELECTIVES (11-17)	GENERAL ELECTIVES (11-17)
BIOLOGICAL/PHYSICAL SCI. (28-33)	BIOLOGICAL/PHYSICAL SCI. (28-33)
BIOL 198 Principles of Biology (4) or	BIOL 198 Principles of Biology (4) or

BIOL 210 General Botany (4)	BIOL 210 General Botany (4)
CHM 210 Chemistry I (4)	CHM 210 Chemistry I (4)
CHM 230 Chemistry II (4)	CHM 230 Chemistry II (4)
BIOCH 265 Intro. Organic/Biochemistry (5) or	BIOCH 265 Intro. Organic/Biochemistry (5) or
CHM 350 General Organic Chemistry (3)	CHM 350 General Organic Chemistry (3)
MATH 100 College Algebra (3)	MATH 100 College Algebra (3)
STAT 350 Business & Econ. Statistics (3)	STAT 350 Business & Econ. Statistics (3)
CIS 102 Intro. Spreadsheet Applic. (1)	CIS 102 Intro. Spreadsheet Applic. (1)
Two of the following courses:	Two of the following courses:
PHYS 113 General Physics (4) or	PHYS 113 General Physics (4) or
PHYS 115 Descriptive Physics (5)	PHYS 115 Descriptive Physics (5)
BIOL 455 General Microbiology (4)	BIOL 455 General Microbiology (4)
ASI 500 Genetics (3)	ASI 500 Genetics (3)
BIOL 500 Plant Physiology (4)	BIOL 500 Plant Physiology (4)
BIOL 529 Fundamentals of Ecology (3)	BIOL 529 Fundamentals of Ecology (3)
GEOG 508 Fundamentals of GIS (3)	GEOG 508 Fundamentals of GIS (3)
MATH 205 Gen. Calc. & Linear Algebra (3)	MATH 205 Gen. Calc. & Linear Algebra (3)
AGRICULTURE (13)	AGRICULTURE (12)
AGEC 120 Agric. Econ. & Agric. Bus. (3) or	AGEC 120 Agric. Econ. & Agric. Bus. (3) or
ECON 120 Prin. Microeconomics (3)	ECON 120 Prin. Microeconomics (3)
ENTOM 300 Economic Entomology (3)	ENTOM 300 Economic Entomology (3)
GENAG 101 Agricultural Orientation (1)	PLPTH 500 Plant Pathology (3)
PLPTH 500 Plant Pathology (3)	Agricultural Elective (3)
Agricultural Elective (3)	
Total hrs. 127	Total hrs. 127

RATIONALE: The College of Agriculture is encouraging each department to add their own Orientation course. Agronomy Capstone Experience will be required by all Agronomy majors in their senior year, with a goal of creating a culminating learning experience.

IMPACT: None.

EFFECTIVE DATE: Fall 2013

B.S. in Agriculture: Agronomy - Consulting and Production Option

FROM:	TO:
AGRONOMY (30-31):	AGRONOMY (<u>34-35</u>):
AGRON 220 Crop Science (4)	AGRON 101 Agronomy Orientation (1)
AGRON 305 Soils (4)	AGRON 220 Crop Science (4)
AGRON 330 Weed Science (3)	AGRON 305 Soils (4)
AGRON 360 Crop Growth & Development (3)	AGRON 330 Weed Science (3)
AGRON 375 Soil Fertility (3)	AGRON 360 Crop Growth & Development (3)
AGRON 385 Soil Fertility Lab (2)	AGRON 375 Soil Fertility (3)
AGRON 405 Internship in Agronomy (3)	AGRON 385 Soil Fertility Lab (2)
AGRON 650 Integrated Weed Management (3)	AGRON 405 Internship in Agronomy (3)
AGRON Elective (5-6)	AGRON 602, Agronomy Capstone Experience (3)
	AGRON 650 Integrated Weed Management (3)
	AGRON Elective (5-6)

COMM/SOC. SCI./HUMAN./ECON/BUS (26) ECON 110 Prin. Macroeconomics (3) ENGL 100 Expository Writing I (3) ENGL 200 Expository Writing II (3) COMM 105 Public Speaking I (2) Communications Elective (3) Social Sci./Humanities Electives (9) AGEC 308 Farm and Ranch Management or ACCTG 231 Acct. for Business Operations

GENERAL ELECTIVES (8-13)

BIOLOGICAL/PHYSICAL SCI. (29-33) BIOL 198 Principles of Biology (4) or BIOL 210 General Botany (4) CHM 210 Chemistry I (4) CHM 230 Chemistry II (4) BIOCH 265 Intro. Organic/Biochemistry (5) or CHM 350 General Organic Chemistry (3) MATH 100 College Algebra (3) PHYS 113 General Physics (4) or PHYS 115 Descriptive Physics (5) STAT 340 Biometrics (3) CIS 102 Intro. Spreadsheet Applic. (1) One of the following courses: AGRON 645 Soil Microbiology (4) BIOL 455 General Microbiology (4) BIOL 529 Fundamentals of Ecology (3) ASI 500 Genetics (3) GEOG 508 Fundamentals of GIS (3)

AGRICULTURE (29-30) AGEC 120 Agric. Econ. & Agric. Bus. (3) or ECON 120 Prin. Microeconomics (3) ATM 653/654 Irrigation Practices (2) + Lab (1) ENTOM 300 Economic Entomology (3) or ENTOM 312 General Entomology (2) and ENTOM 313 Gen. Entomology Lab (1) ENTOM 612 Insect Pest Diagnosis (2) or ENTOM 767 Insect Pest Management (3) GENAG 101 Agricultural Orientation (1) PLPTH 500 Plant Pathology (3) PLPTH 585 Crop Diseases (2) Agricultural Electives (12) Total hrs. 127

COMM/SOC. SCI./HUMAN./ECON/BUS (26) ECON 110 Prin. Macroeconomics (3) ENGL 100 Expository Writing I (3) ENGL 200 Expository Writing II (3) COMM 105 Public Speaking I (2) Communications Elective (3) Social Sci./Humanities Electives (9) AGEC 308 Farm and Ranch Management or ACCTG 231 Acct. for Business Operations

GENERAL ELECTIVES (5-10)

BIOLOGICAL/PHYSICAL SCI. (29-33) BIOL 198 Principles of Biology (4) or **BIOL 210 General Botany (4)** CHM 210 Chemistry I (4) CHM 230 Chemistry II (4) BIOCH 265 Intro. Organic/Biochemistry (5) or CHM 350 General Organic Chemistry (3) MATH 100 College Algebra (3) PHYS 113 General Physics (4) or PHYS 115 Descriptive Physics (5) STAT 340 Biometrics (3) CIS 102 Intro. Spreadsheet Applic. (1) One of the following courses: AGRON 645 Soil Microbiology (4) BIOL 455 General Microbiology (4) BIOL 529 Fundamentals of Ecology (3) ASI 500 Genetics (3) GEOG 508 Fundamentals of GIS (3) AGRICULTURE (28-29)

AGEC 120 Agric. Econ. & Agric. Bus. (3) or ECON 120 Prin. Microeconomics (3) ATM 653/654 Irrigation Practices (2) + Lab (1) ENTOM 300 Economic Entomology (3) or ENTOM 312 General Entomology (2) and ENTOM 313 Gen. Entomology Lab (1) ENTOM 612 Insect Pest Diagnosis (2) or ENTOM 767 Insect Pest Management (3) PLPTH 500 Plant Pathology (3) PLPTH 585 Crop Diseases (2) Agricultural Electives (12)

127

RATIONALE:

The College of Agriculture is encouraging each department to add their own Orientation course. Agronomy Capstone Experience will be required by all Agronomy majors in their senior year, with a goal of creating a culminating learning experience.

Total hrs.

IMPACT:

None.

EFFECTIVE DATE: Fall 2013

B.S. in Agriculture: Agronomy – Plant Science and Biotechnology Option

FROM:	TO:
AGRONOMY (34-35):	AGRONOMY (34-35):
AGRON 220 Crop Science (4)	AGRON 101 Agronomy Orientation (1)
AGRON 305 Soils (4)	AGRON 220 Crop Science (4)
AGRON 330 Weed Science (3)	AGRON 305 Soils (4)
AGRON 360 Crop Growth & Development (3)	AGRON 330 Weed Science (3)
AGRON 375 Soil Fertility (3)	AGRON 360 Crop Growth & Development (3)
AGRON 630 Crop Improvement & Biotech (3)	AGRON 375 Soil Fertility (3)
AGRON 405 Internship in Agronomy (3)	AGRON 630 Crop Improvement & Biotech (3)
AGRON 610 Biotechnology (3)	AGRON 405 Internship in Agronomy (3)
AGRON Electives (8-9)	AGRON 602 Agronomy Capstone Experience (3)
	AGRON 610 Biotechnology (3)
	AGRON Electives (7-8)
COMM/SOCIAL SCI./HUMANITIES/ECON(26)	COMM/SOCIAL SCI./HUMANITIES/ECON (26)
ECON 110 Prin. Macroeconomics (3)	ECON 110 Prin. Macroeconomics (3)
AGEC 120 Agric. Econ. & Agric. Bus. (3)	AGEC 120 Agric. Econ. & Agric. Bus. (3)
AGEC 315 Contemp. Issues Global Food Ag	AGEC 315 Contemp. Issues Global Food Ag
Systems(3)	Systems(3)
ENGL 100 Expository Writing I (3)	ENGL 100 Expository Writing I (3)
ENGL 200 Expository Writing II (3)	ENGL 200 Expository Writing II (3)
COMM 105 Public Speaking I (2)	COMM 105 Public Speaking I (2)
Communications Elective (3)	Communications Elective (3)
Social Sci./Humanities Electives (6)	Social Sci./Humanities Electives (6)
GENERAL ELECTIVES (11-13)	GENERAL ELECTIVES (8-10)
BIOLOGICAL/PHYSICAL SCI. (54-55)	BIOLOGICAL/PHYSICAL SCI. (54-55)
BIOL 198 Principles of Biology (4) or	BIOL 198 Principles of Biology (4) or
BIOL 210 General Botany (4)	BIOL 210 General Botany (4)
BIOL 450 Modern Genetics (3) or	BIOL 450 Modern Genetics (3) or
ASI 500 Genetics (3)	ASI 500 Genetics (3)
CHM 210 Chemistry I (4)	CHM 210 Chemistry I (4)
CHM 230 Chemistry II (4)	CHM 230 Chemistry II (4)
CHM 350 General Organic Chemistry (3)	CHM 350 General Organic Chemistry (3)
MATH 100 College Algebra (3)	MATH 100 College Algebra (3)
MATH 150 Plane Trigonometry (3)	MATH 150 Plane Trigonometry (3)
ENTOM 300 Economic Entomology (3)	ENTOM 300 Economic Entomology (3)
PLPTH 500 Plant Pathology (3)	PLPTH 500 Plant Pathology (3)
BIOL 500 Plant Physiology (4)	BIOL 500 Plant Physiology (4)
PHYS 113 General Physics (4) or	PHYS 113 General Physics (4) or
PHYS 115 Descriptive Physics (5)	PHYS 115 Descriptive Physics (5)
STAT 340 Biometrics (3)	STAT 340 Biometrics (3)
CIS 102 Intro. Spreadsheet Applic. (1)	CIS 102 Intro. Spreadsheet Applic. (1)

Plus 12 credit hours from the following courses:	Plus 12 credit hours from the following courses:	
AGRON 770 Plant Genetics (3)	AGRON 770 Plant Genetics (3)	
BIOL 529 Fundamentals of Ecology (3)	BIOL 529 Fundamentals of Ecology (3)	
BIOL 675 Genetics of Microorganisms (3)	BIOL 675 Genetics of Microorganisms (3)	
BIOL 676 Molecular Genetics Lab (3)	BIOL 676 Molecular Genetics Lab (3)	
PLPTH 635 Intro. Plant Resist. To Pests (2)	AGRON/ENTOM/PLPTH 732 Intro. Plant	
PLPTH 585 Crop Diseases (2)	Resist. To Pests (2)	
PLPTH 755 Plant Resistance to Diseases (2)	PLPTH 585 Crop Diseases (2)	
ENTOM 745 Plant Resistance to Insects (2)	PLPTH 755 Plant Resistance to Diseases (2)	
BIOCH 521 General Biochemistry (3)	ENTOM 745 Plant Resistance to Insects (2)	
MATH 220 Analytical Geom.&Calculus I(4)	BIOCH 521 General Biochemistry (3)	
MATH 221 Analytical Geom&CalculusII(4)	MATH 220 Analytical Geom.&Calculus I (4)	
PHYS 114 General Physics II (4)	MATH 221 Analytical Geom.&Calculus II(4)	
	PHYS 114 General Physics II (4)	
Total hrs. 127	Total hrs. 127	

RATIONALE: The College of Agriculture is encouraging each department to add their own Orientation course. Agronomy Capstone Experience will be required by all Agronomy majors in their senior year, with a goal of creating a culminating learning experience. PLPTH 635 is now cross listed in Agronomy, Entomology, and Plant Pathology, and the number has been changed to 732.

IMPACT: None.

EFFECTIVE DATE: Fall 2013

B.S. in Agriculture: Agronomy - Range Management Option

FROM:	TO:
AGRONOMY (31-32):	AGRONOMY (<u>35-36</u>):
AGRON 220 Crop Science (4)	AGRON 101 Agronomy Orientation (1)
AGRON 305 Soils (4)	AGRON 220 Crop Science (4)
AGRON 501 Range Management (3)	AGRON 305 Soils (4)
AGRON 515 Soil Genesis and Classification (3)	AGRON 501 Range Management (3)
AGRON 560 ID Range & Pasture Plants (1)	AGRON 515 Soil Genesis and Classification (3)
AGRON 660 Grassland Monitoring & Ass. (2)	AGRON 560 ID Range & Pasture Plants (1)
AGRON 661 Grassland Monitoring&Ass. Lab (1)	AGRON 602 Agronomy Capstone Experience (3)
AGRON 670 Range Management Problems (3)	AGRON 660 Grassland Monitoring & Ass. (2)
AGRON 681 Range Ecology (3)	AGRON 661 Grassland Monitoring & Ass. Lab (1)
AGRON 762 Range Grasses (2)	AGRON 670 Range Management Problems (3)
AGRON 790 Range Management Planning (3)	AGRON 681 Range Ecology (3)
AGRON Elective (2 or 3)	AGRON 762 Range Grasses (2)
	AGRON 790 Range Management Planning (3)
	AGRON Elective (2 or 3)
COMM/SOCIAL SCI./HUMANITIES/ECON(23)	COMM/SOCIAL SCI./HUMANITIES/ECON (23)
ECON 110 Prin. Macroeconomics (3)	ECON 110 Prin. Macroeconomics (3)
ENGL 100 Expository Writing I (3)	ENGL 100 Expository Writing I (3)
ENGL 200 Expository Writing II (3)	ENGL 200 Expository Writing II (3)
COMM 105 Public Speaking I (2)	COMM 105 Public Speaking I (2)
Communications Elective (3)	Communications Elective (3)
Social Sci./Humanities Electives (9)	Social Sci./Humanities Electives (9)
CENED AL ELECTRUES (12.17)	
GENERAL ELECTIVES (13-17)	GENERAL ELECTIVES (<u>10-14</u>)
DIOLOCICAL (DUVSICAL SCL (42.46)	DIOLOCICAL /DUVSICAL SCL (42.46)
DIOLOGICAL/PHI SICAL SCI. (43-40)	DIOLOGICAL/PHISICAL SCI. (45-40) DIOL 108 Principles of Piology (4) or
BIOL 198 Finiciples of Biology (4) of BIOL 210 General Botany (4)	BIOL 196 Finicipies of Biology (4) of BIOL 210 General Potenty (4)
CHM 210 Chamistry I (4)	CHM 210 Chamistar I (4)
CHM 220 Chemistry II (4)	CHM 220 Chemistry II (4)
BIOCH 265 Intro. Organic/Biochemistry (5) or	BIOCH 265 Intro. Organic/Biochemistry (5) or
CHM 250 Conorel Organic Chamistry (3)	CHM 250 General Organic Chemistry (3)
MATH 100 College Algebra (3)	MATH 100 College Algebra (3)
MATH 150 Plane Trigonometry (3)	MATH 150 Plane Trigonometry (3)
BIOL 500 Plant Physiology (4)	BIOL 500 Plant Physiology (4)
BIOL 500 Findamentals of Ecology (3)	BIOL 500 Findementals of Ecology (3)
BIOL 529 Fundamentals of Ecology (3) BIOL 551 Taxonomy of Elowering Plants (4)	BIOL 529 Fundamentals of Ecology (5) BIOL 551 Taxonomy of Elowering Plants (4)
GEOL 100 Earth in Action (3)	GEOL 100 Earth in Action (3)
DEVE 100 Latin in Action (3) DHVS 113 General Physics (A) or	PHVS 113 General Physics (A) or
PHVS 115 Descriptive Physics (5)	PHVS 115 Descriptive Physics (5)
CIS 102 Intro Spreadsheet Applic (1)	CIS 102 Intro Spreadsheet Applic (1)
Riol & Phys Sci Elective (3)	Biol & Phys Sci Elective (3)
Dion & Thys. Ser. Elective (5)	$\frac{1}{2}$
AGRICULTURE (13)	AGRICULTURE (<u>12</u>)
AGEC 120 Agric. Econ. & Agric. Bus. (3) or	AGEC 120 Agric. Econ. & Agric. Bus. (3) or
ECON 120 Prin. Microeconomics (3)	ECON 120 Prin. Microeconomics (3)
ENTOM 300 Economic Entomology (3)	ENTOM 300 Economic Entomology (3)

ASI 102 Principles of Animal Science (3) ASI 515 Beef Science (3) GENAG 101 Agricultural Orientation (1)		ASI 102 Principles of Animal Science (3) ASI 515 Beef Science (3)	
Total hrs.	127	Total hrs.	127

RATIONALE: The College of Agriculture is encouraging each department to add their own Orientation course. Agronomy Capstone Experience will be required by all Agronomy majors in their senior year, with a goal of creating a culminating learning experience.

IMPACT: None.

EFFECTIVE DATE: Fall 2013

B.S. in Agriculture: Agronomy – Soil and Environmental Science Option FROM: TO:

FROM:	10:
AGRONOMY (38):	AGRONOMY (<u>39</u>):
AGRON 220 Crop Science (4)	AGRON 101 Agronomy Orientation (1)
AGRON 305 Soils (4)	AGRON 220 Crop Science (4)
AGRON 335 Environmental Quality (3)	AGRON 305 Soils (4)
AGRON 405 Internship in Agronomy (3)	AGRON 335 Environmental Quality (3)
	AGRON 405 Internship in Agronomy (3)
	AGRON 602 Agronomy Capstone Experience (3)
Plus 24 credit hours from the following courses:	Plus <u>12</u> credit hours from the following courses:
AGRON 360 Crop Growth&Development (3)	AGRON 375 Soil Fertility (3)
AGRON 375 Soil Fertility (3)	AGRON 385 Soil Fertility Lab (2)
AGRON 385 Soil Fertility Lab (2)	AGRON 515 Soil Genesis&Classification (3)
AGRON 501 Range Management (3)	AGRON 605 Soil & Environ. Chemistry (3)
AGRON 515 Soil Genesis & Classification (3)	AGRON 625 Applic. of Nutrient Mgmt. (3)
AGRON 605 Soil & Environ. Chemistry (3)	AGRON 635 Soil Conser. & Management (3)
AGRON 625 Applic. of Nutrient Mgmt. (3)	AGRON 645 Soil Microbiology (3)
AGRON 635 Soil Conserv. & Management(3)	AGRON 646 Soil Microbiology Lab (1)
AGRON 645 Soil Microbiology (3)	AGRON 746 Physical Properties of Soils (3)
AGRON 646 Soil Microbiology Lab (1)	
AGRON 746 Physical Properties of Soils (3)	
AGRON Elective (3)	AGRON Electives (6)
Environmental Science Elective (3)	Environmental Science or Agronomy Elective (3)
COMM/SOCIAL SCI./HUMANITIES/ECON(26)	COMM/SOCIAL SCI./HUMANITIES/ECON (26)
AGEC 120 Agric. Econ. & Agric. Bus (3) or	AGEC 120 Agric. Econ. & Agric. Bus (3) or
ECON 120 Prin. Microeconomics (3)	ECON 120 Prin. Microeconomics (3)
AGEC 525 Natural Resources/Environ. Econ. (3)	AGEC 525 Natural Resources/Environ. Econ. (3)
ENGL 100 Expository Writing I (3)	ENGL 100 Expository Writing I (3)
ENGL 200 Expository Writing II (3)	ENGL 200 Expository Writing II (3)
COMM 105 Public Speaking I (2)	COMM 105 Public Speaking I (2)
Communications Elective (3)	Communications Elective (3)
Social Sci./Humanities Electives (6)	Social Sci./Humanities Electives (6)
One of the following courses:	One of the following courses:
HIST 511 Environmental History (3)	HIST 511 Environmental History (3)

SOCIO 536 Environmental Sociology (3)	SOCIO 536 Environmental Sociology (3)
ANTH 260 Intro. To Archaeology (3)	ANTH 260 Intro. To Archaeology (3)
GEOG 340 Geography of Natural Res. (3)	GEOG 340 Geography of Natural Res.(3)
GENERAL ELECTIVES (12-18)	GENERAL ELECTIVES (11-17)
 BIOLOGICAL/PHYSICAL SCI. (45-51) BIOL 198 Principles of Biology (4) or BIOL 210 General Botany (4) CHM 210 Chemistry I (4) CHM 230 Chemistry II (4) CHM 350 General Organic Chemistry (3) MATH 100 College Algebra (3) MATH 150 Plane Trigonometry (3) GEOL 100 Earth in Action (3) GEOL 103 Geology Lab (1) PHYS 113 General Physics (4) or PHYS 115 Descriptive Physics (5) STAT 340 Biometrics (3) CIS 102 Intro. Spreadsheet Applic. (1) Five of the following courses: AGRON 655 Site Specific Agriculture (3) ATM 661 Water & Waste in Environ. (3) BIOCH 521 General Biochemistry (3) 	 BIOLOGICAL/PHYSICAL SCI. (45-51) BIOL 198 Principles of Biology (4) or BIOL 210 General Botany (4) CHM 210 Chemistry I (4) CHM 230 Chemistry II (4) CHM 350 General Organic Chemistry (3) MATH 100 College Algebra (3) MATH 150 Plane Trigonometry (3) GEOL 100 Earth in Action (3) GEOL 100 Earth in Action (3) GEOL 103 Geology Lab (1) PHYS 113 General Physics (4) or PHYS 115 Descriptive Physics (5) STAT 340 Biometrics (3) CIS 102 Intro. Spreadsheet Applic. (1) Five of the following courses: AGRON 655 Site Specific Agriculture (3) <u>AGRON 606/GEOG 605 Remote Sensing of Environ. (3)</u>
BIOL 500 Plant Physiology (4) BIOL 529 Fundamentals of Ecology (3) FOR 375 Intro. Natural Resource Mgmt. (3)	ATM 661 Water & Waste in Environ. (3)BIOCH 521 General Biochemistry (3)BIOL 500 Plant Physiology (4)
GEOG 508 Fundamentals of GIS (3) GEOG 535 Fund. of Climatology (3) GEOG 705 Remote Sensing of Environ. (3)	BIOL 529 Fundamentals of Ecology (3) FOR 375 Intro. Natural Resource Mgmt. (3) GEOG 508 Fundamentals of GIS (3)
GEOG 725 Geography Water Resources (3 GEOL 506 Environmental Studies (3)) GEOG 535 Fund. of Climatology (3) GEOG 725 Geography Water Resources (3)
MATH 220 Analy. Geometry & Calc. I (4)	GEOL 506 Environmental Studies (3) GEOL 520 Geomorphology (3)
CHM 371 Chemical Analysis (4)	MATH 220 Analy. Geometry & Calc. I (4)
PHYS 114 General Physics II (4)	CHM 371 Chemical Analysis (4) PHYS 114 General Physics II (4)
Total hrs. 127	Total hrs. 127

RATIONALE:

The College of Agriculture is encouraging each department to add their own Orientation course. Agronomy Capstone Experience will be required by all Agronomy majors in their senior year, with a goal of creating a culminating learning experience. The restricted elective list in Agronomy has been modified so that students choose from a restricted list of soil science courses and to give students more choices in Agronomy electives. GEOG 705, Remote Sensing of Environment is now cross-listed in Agronomy, and the course numbers have been changed to GEOG 605 and AGRON706.

IMPACT:None.EFFECTIVE DATE:Fall 2013

Animal Science & Industry

B.S. in Agriculture: Animal Science and Industry: Animal Products Option

FROM: TO:

GENERAL COURSES				GENERAL COURSES				
ASI 101 Animal Science Orientation -OR-			ASI 101 Animal Science OrientationOR-					
GENAG	200	College Careers	0	GENAG	200	College Careers	0	
CHM	110	General Chemistry	3	CHM	110	General Chemistry	3	
CHM	111	Gen Chemistry Lab	1	CHM	111	Gen Chemistry Lab	1	
BIOL	198	Principles of Biology	4	BIOL	198	Principles of Biology	4	
ECON	110	Prin Macro Economics	3	ECON	110	Prin Macro Economics	3	
ENGL	100	Expository Writing I	3	ENGL	100	Expository Writing I	3	
ENGL	200	Expository Writing II	3	ENGL	200	Expository Writing II	3	
MATH	100	College Algebra	3	MATH	100	College Algebra	3	
COMM	105	Public Speaking IA	2	COMM	105	Public Speaking IA	2	
		AGRICULTURE				AGRICULTURE		
(Select 2	course	es from 2 other AG Depts	. – min. 5 hrs)	(Select 2	course	es from 2 other AG Depts	. – min. 5 hrs)	
(1 hour co	urses o	cannot be applied)		(1 hour co	ourses o	cannot be applied)		
AGCOM	– AGC	COM 400		AGCOM	– AGC	COM 400		
AGEC – A	AGEC	120 to 420, 460, 500 to 52.	5, 590 to 632, 712	AGEC - A	AGEC	120 to 420, 460, 500 to 52	5, 590 to 632, 712	
ASI - ASI	[660]			ASI – AS	I 660			
ATM – A	TM 16	0 to 329, 571, 572 to 661		ATM – A	TM 16	0 to 329, 571, 572 to 661		
AGRON -	- 220,	305, 330 to 385, 430, 501	, 550, 630 to 660,	AGRON	- 220,	305, 330 to 385, 430, 501	, 550, 630 to 660,	
681 to 790)			681 to 79	0			
ENTOM -	- ENT	OM 250 or 301, 300, 305	, 312, 314 to 620,	ENTOM	– ENT	OM 250 or 301, 300, 305	, 312, 314 to 620,	
692 to 767	7			692 to 76	7			
FDSCI – I	FDSCI	660		FDSCI – FDSCI 660				
GRSC – C	GRSC	100 to 120, 150, 305 to 51	0, 602 to 661, 710	GRSC – <u>GRSC 101 to 790</u>				
to 737, 75	0 to 78	35		HORT – HORT 201 to 525, 535 to 625, 706 to 751				
HORT – H	HORT	201 to 525, 535 to 625, 70	6 to 751	FOR – FOR 210 to 311, 330 to 375, 510, 520, 643				
FOR – FC	R 210	to 311, 330 to 375, 510, 52	20, 643	RRES – RRES 210 to 490, 521 to 705				
RRES – R	RES 2	210 to 490, 521 to 705		PLPTH – PLPTH 500 to 745				
PLPTH -	PLPTI	H 500 to 745		GENAG – GENAG 450, 505				
GENAG -	- GEN	AG 450, 505				BIOSCIENCES		
		BIOSCIENCES		BIOCH	265	Intro Org & BioChem	5	
BIOCH	265	Intro Org & BioChem	5	BIOL	455	General Microbiology	4	
BIOL	455	General Microbiology	4		HUN	IANITIES/SOCIAL SCI	ENCE	
	HUN	ANITIES/SOCIAL SCI	ENCE	(Minimum 9 hours)				
		(Minimum 9 hours)		(M	ust be	taken from more than one o	department)	
(M	ust be	taken from more than one o	lepartment)	(Maxim	um 3 hours in performance	e courses)	
(1	Maxim	um 3 hours in performance	e courses)	AMETH	– AME	TH 160 to 501		
AMETH -	- AME	ETH 160 to 501		ANTH – .	Any co	urse		
ANTH – A	Any co	ourse		ARCH –	ARCH	301		
ARCH – ARCH 301			ART – Ai	ny coui	se			
ART – Any course			DANCE -	- DAN	CE 120 to 200, 225 to 420,	, 495 to 690		
DANCE – DANCE 120 to 200, 225 to 420, 495 to 690			DEN – D	EN 325	5, 450			
DEN – DEN 325, 450			ECON -	ECON	120-799			
ECON - ECON 120-799			ENGL – ENGL 150, 210 to 299, 310, 320 to 399, 420 to					
ENGL – ENGL 150, 210 to 299, 310, 320 to 399, 420 to			499, 536 to 599, 605 to 660, 670 to 695, 700 to 760, 790 to					
499, 536 to 599, 605 to 660, 670 to 695, 700 to 760, 790 to			799					
799				ENVD – I	ENVD	250, 251		
ENVD – I	ENVD	250, 251		GEOG –	GEOG	100, 200, 201, 300 to 799		
GEOG – G	JEOG	100, 200, 201, 300 to 799		HIST – Any course				

HIST – Any course				FSHS – Any course					
FSHS –	Any co	urse		MUSIC	– Any c	course			
MUSIC	– Any o	course		Modern I	Languag	ge – Any course in ARAB, CH	IINE, FREN,		
Modern I	Langua	ge – Any course in ARAB, CHI	NE, FREN,	GRM, IT	'AL, JA	PAN, LATIN, PORT, RUSSN	I, SPAN,		
GRM, IT	'AL, JA	PAN, LATIN, PORT, RUSSN,	SPAN,	URDU					
URDU				PHILO -	Any co	ourse			
PHILO -	Anv co	ourse		POLSC -	- Any c	ourse			
POLSC -	- Any c	ourse		PSYCH -	– Any c	ourse			
PSYCH	- Any c	ourse		SOCIO -	- Any co	ourse			
	Δny c			SOCWK	$-\Delta nv$	course			
SOCWK	$-\Delta nv$	course		DANCE	$-\Delta n v c$	course			
DANCE	Any			THTRE	- Any c	ourse			
TUTDE				WOMST	- Any C				
WOMST	- Any C			WOND I	– Any	USINESS & ECONOMICS			
WOND I	– Ally	USINESS & ECONOMICS		ACCTC	ם 221	Accounting Due One	2		
ACCTC	021 1	USINESS & ECONOMICS	2	ACCIG	231	Accounting Bus Ops	3		
ACCIG	231	Accounting Bus Ops	3	(Select 4	other of	courses, min. 12 hours)			
(Select 4	other of	courses, min. 12 hours)		AGEC -	AGEC	202 to 420, 445 to 799			
AGEC -	AGEC	202 to 420, 445 to 799		ACCIG	– ACC	IG 241 to 799			
ACCTG	– ACC	IG 241 to 799		FINAN -	- Any co	ourse			
FINAN -	- Any c	ourse		FSHS – F	FSHS 1	05			
FSHS – I	FSHS 1	05		ENTRP -	– Any c	ourse			
MANGT	' – Any	course		MANGT	' – Any	course			
MKTG –	Any co	ourse		MKTG –	Any co	ourse			
	MAT	H/STATISTICS/COMPUTEI	RS		MAT	H/STATISTICS/COMPUTI	ERS		
		(Select 1)				(Select 1)			
STAT	325	Intro Statistics	3	STAT	325	Intro Statistics	3		
STAT	340	Biometrics I	3	STAT	340	Biometrics I	3		
STAT	350	Business Econ Statistics	3	STAT	350	Business Econ Statistics	3		
		(Minimum 3 hours)				(Minimum 3 hours)			
ASI – AS	SI 490			ASI – AS	SI 490				
CIS – CI	S 101 to	o 104		CIS – CIS 101 to 104					
MATH -	MATH	I 150, 205, 210, 211, 220, 221, 2	222	MATH – MATH 150, 205, 210, 211, 220, 221, 222					
STAT -	STAT 3	41, 351		STAT – STAT 341, 351					
		COMMUNICATIONS		COMMUNICATIONS					
		(Minimum 3 hours)		(Minimum 3 hours)					
AGCOM	– AGC	COM 310, 400, 410, 590 & 610		AGCOM	I – AGC	COM 310, 400, 410, 590 & 610)		
COMM -	- COM	M 311, 321, 322, 326		COMM – COMM 311, 321, 322, 326					
ENGL -	ENGL	300, 516		ENGL – ENGL 300, 516					
GENAG	– GEN	AG 450		GENAG – GENAG 450					
MC - M	C 110	111, 112, 120, & 180		MC - M	C 110	111, 112, 120, & 180			
	A	NIMAL & FOOD SCIENCE			A	NIMAL & FOOD SCIENCE	C		
ASI	102	Prin Animal Science	3	ASI	102	Prin Animal Science	3		
ASI	105	Animal Sciences & Ind	1	ASI	105	Animal Sciences & Ind	1		
ASI	105	Dairy/Poultry Lab	1	ASI	105	Dairy/Poultry I ab	1		
	318	Fund of Nutrition	1		318	Fund of Nutrition	3		
	520	A SI Seminar	5		510	A SI Seminar	5		
FDSCI	300	ASI Schillar Intro Food Science	1	FDSCI	300	Intro Food Science	1		
EDSCI	502	Dringinlag of UACCD	2	EDSCI	502	Dringinlag of UACCD	5		
FDSCI	090	Finiciples of HACCP	∠ 2	FDSCI	090	Finiciples of HACCP	2		
FDSCI	000	Food Microbiology	2	FDSCI	000	Food Microbiology	2		
FDSCI	601	Food Microbiology Lab	2	FDSCI	601	Food Microbiology Lab	2		
FDSCI	695	QA of Food Products	5	FDSCI	695	QA of Food Products	3		
ACT	250	(Select I course)	2	ACT	250	(Select I course)	2		
ASI	350	Meat Science	3	ASI	350	Meat Science	3		
ASI	405	Fund Milk Processing	3	ASI	405	Fund Milk Processing	3		
1		(Select 1 course)				(Select 1 course)			
		(Select I coulse)							

ASI	524	Sheep/Meat Goat Science	3	ASI	524	Sheep/Meat Goat Science	3	
ASI	535	Swine Science	3	ASI	535	Swine Science	3	
ASI	621	Dairy Cattle Management	3	ASI	621	Dairy Cattle Management	3	
ASI	645	Poultry Management	3	ASI	645	Poultry Management	3	
		(Select 18 hours)				(Select 18 hours)	Ì	
ASI	315	Livestock & Meat Eval	3	ASI	315	Livestock & Meat Eval	3	
ASI	361	Meat Animal Processing	2	ASI	361	Meat Animal Processing	2	
ASI	370	Prin. Meat Evaluation	2	ASI	370	Prin. Meat Evaluation	2	
ASI	495	Adv. Meat Evaluation	2	ASI	495	Adv. Meat Evaluation	2	
ASI	500	Genetics	3	ASI	500	Genetics	3	
ASI	510	Animal Breeding	3	ASI	510	Animal Breeding	3	
ASI	533	Anatomy & Physiology	4	ASI	533	Anatomy & Physiology	4	
ASI	608	Dairy Food Processing Tech	3	ASI	561	Undergrad Research in ASI	0-3	
ASI	610	Processed Meat Ops	2	ASI	608	Dairy Food Processing Tech	3	
ASI	640	Poultry Product Tech	3	ASI	610	Processed Meat Ops	2	
ASI	650	I.D. Data Mngt Food Animal	2	ASI	640	Poultry Product Tech	3	
ASI	655	Behavior Domestic Animals	3	ASI	650	I.D. Data Mngt Food Animal	2	
ASI	658	Animal Growth & Development	nt3	ASI	655	Behavior Domestic Animals	3	
ASI	777	Meat Technology	3	ASI	658	Animal Growth & Developmer	nt3	
FDSCI	305	Fund Food Processing	3	ASI	777	Meat Technology	3	
FDSCI	430	Food Product Eval	3	FDSCI	305	Fund Food Processing	3	
FDSCI	603	Food Science Internship	1-3	FDSCI	430	Food Product Eval	3	
Total hou	ırs req	uired for graduation (126 cred	lit hours)	FDSCI	603	Food Science Internship	1-3	
					Total hours required for graduation (126 credit hours)			

RATIONALE: With the addition of classes for the entrepreneurship minor there are sufficient courses in with the ENTRP pre-fix that may be of interest to our students. Our students have a restricted electives block that requires them to pick from courses in ACCTG, FINAN, MANGT, MKTG, AGEC, and ECON this would give them more options within that block.

With the proposed addition of ASI 561, Undergraduate Research in Animal Science, we would also like to propose that the course be used in the "Select 18 hours" block of animal and food science related courses. This would be consistent the university's 2025 plan to encourage undergraduate research.

IMPACT: In the ENTRP prefix course, we estimate there will be at most 10-20 students a year across all of our 6 options in ASI that would enroll. The College of Business Administration has been contacted.

The addition of ASI 561 to our curriculum should have no impact on other departments.

EFFECTIVE DATE: Fall 2013

B.S. in Agriculture: Animal Sciences & Industry: Bioscience/Biotechnology Option

FROM:			,	TO:				
		GENERAL COURSES				GENERAL COURSES		
ASI	101	Animal Science Orientation OR-	1	ASI	101	Animal Science Orientation	DR- 1	
GENAG	200	College Careers	0	GENAG	200	College Careers	0	
CHM	210	Chemistry I	4	CHM	210	Chemistry I	4	
BIOL	198	Principles of Biology	4	BIOL	198	Principles of Biology	4	
ECON	110	Prin Macro Economics	3	ECON	110	Prin Macro Economics	3	
ENGL	100	Expository Writing I	3	ENGL	100	Expository Writing I	3	
ENGL	200	Expository Writing II	3	ENGL	200	Expository Writing II	3	
MATH	100	College Algebra	3	MATH	100	College Algebra	3	
COMM	105	Public Speaking IA	2	COMM	105	Public Speaking IA	2	
		AGRICULTURE				AGRICULTURE		
(Plus 2 c	ourses	- 2 other AG Depts. min. 5 hou	irs)	(Plus 2 co	ourses	- 2 other AG Depts. min. 5 he	ours)	
(1 hour co	ourses o	cannot be applied)		(1 hour co	ourses o	cannot be applied)		
AGCOM	– AGC	COM 400		AGCOM	– AGC	COM 400		
AGEC – A	AGEC	120 to 420, 460, 500 to 525, 590	to 632, 712	AGEC – A	AGEC	120 to 420, 460, 500 to 525, 59	90 to 632, 712	
ASI – AS	I 660			ASI - ASI	I 660			
ATM – A	TM 16	0 to 329, 571, 572 to 661		ATM – A	TM 16	0 to 329, 571, 572 to 661		
AGRON	- 220,	305, 330 to 385, 430, 501, 550,	630 to 660,	AGRON -	- 220,	305, 330 to 385, 430, 501, 550	0, 630 to 660,	
681 to 79	0			681 to 790	C			
FDSCI –	FDSCI	302, 305, 660, 690		FDSCI – I	FDSCI	302, 305, 660, 690		
ENTOM	– ENT	OM 250 or 301, 300, 305, 312,	314 to 620,	ENTOM ·	– ENT	OM 250 or 301, 300, 305, 312	2, 314 to 620,	
692 to 76'	7			692 to 767	7			
GRSC – C	GRSC	10 0 to 120, 150, 305 to 510, 602	to 661, 710	GRSC – GRSC 10 <u>1 to 790</u>				
to 737, 75	60 to 78	5		HORT – HORT 201 to 525, 535 to 625, 706 to 751				
HORT – I	HORT	201 to 525, 535 to 625, 706 to 7	51	FOR – FC	DR 210	to 311, 330 to 375, 510, 520, 6	543	
FOR – FC	DR 210	to 311, 330 to 375, 510, 520, 64	3	RRES – RRES 210 to 490, 521 to 705				
RRES – F	RRES 2	10 to 490, 521 to 705		PLPTH – PLPTH 500 to 745				
PLPTH –	PLPTI	H 500 to 745		GENAG – GENAG 450, 505				
GENAG -	- GEN	AG 450, 505	_	HUMANITIES/SOCIAL SCIENCE				
	HUN	IANITIES/SOCIAL SCIENCE	C	(Minimum 9 hours)				
0.4		(Minimum 9 hours)		(Must be taken from more than one department)				
(M	ust be 1	aken from more than one depart	ment)		Maxim	um 3 hours in performance cou	irses)	
(.	Maxim	um 3 nours in performance cours	ses)	AMEIH - AMEIH 160 to 501				
AMEIH		1H 100 to 501		ANIH - A	Any co	201		
ANTH - A	Any co	201		ARCH - A	AKCH	301		
	АКСП	301		AKI – AI	DAN	Se CE 120 to 200, 225 to 420, 405	to 600	
AKI – AI		se CE 120 to 200, 225 to 420, 405 t	o 600	DANCE -	- DAN EN 224	CE 120 to 200, 225 to 420, 495	0 10 090	
DANCE -	- DAN EN 324	CE 120 to 200, 223 to 420, 493 t 450	0 090	DEN – DI	EIN 52. ECON	120 700		
ECON	EN 52. ECON	120,700		ECON - I	ECON	120-799 150 210 to 200 310 320 to 30	0 420 to	
ECON - 1	ECON	120-799 150 210 to 200 310 320 to 300	420 to	400 536 t	500L	605 to 660, 670 to 605, 700 to	760, 700 to	
100 536	to 500	605 to 660, 670 to 695, 700 to 7	,42010	700	.0 599,	005 10 000, 070 10 055, 700 10	700, 790 to	
700	<i>iii 377</i> ,		00, 790 10	FNVD_I	FNVD	250 251		
FNVD _	FNVD	250 251		GEOG = 0	GEOG	100, 200, 201, 300 to 799		
GEOG = 1	GEOG	100 200 201 300 to 799		HIST - A		rse		
HIST – A		rse		ESHS – A	Any co	urse		
ESHS – A	Any cou	lirse		MUSIC -	- Anv c	Course		
MUSIC -	– Anv c	course		Modern L	anguag	pe – Any course in ARAB. CH	INE. FREN.	
Modern I	anguag	ge – Any course in ARAB, CHIN	IE, FREN.	GRM. IT	AL. JA	PAN. LATIN. PORT. RUSSN	SPAN	
GRM IT	AL. IA	PAN. LATIN PORT RUSSN	SPAN.	URDU	, 011	,,, _ 0101, 100011	,,	
URDU		,,,, 0101, 100001, 1	,	PHILO –	Anv co	ourse		
PHILO -	Anv co	ourse		POLSC -	Any c	ourse		

POLSC – Any course								
PSYCH – Any course								
SOCIO –	SOCIO – Any course							
SOCWK – Any course								
DANCE -	DANCE – Any course							
THTRE -	Any c	ourse						
WOMST	– Any	course						
]	BIOSCIENCES/BIOTECH						
ASI	200	Intro Research in ASI	1					
BIOL	455	General Microbiology	4					
		(Minimum 9 hours)						
CHM	230	Chemistry II	4					
CHM	350	General Organic Chemistry	3					
CHM	351	General Organic Chemistry Lab	02					
BIOCH	521	General Biochemistry	3					
BIOCH	522	General Biochemistry Lab	2					
		(Select 4 courses)						
ASI	598	Bioscience Internship in ASI 1	-6					
ASI	600	Applied Animal Biotechnology	2*					
ASI	658	Animal Growth & Developmen	t3					
PLPTH	610	Biotechnology	3*					
BIOL	450	Modern Genetics	3					
BIOL	510	Developmental Biology	3					
BIOL	511	Developmental Biology Lab	1					
BIOL	541	Cell Biology	3					
BIOL	625	Animal Parasitology	4					
BIOL	671	Immunology	4					
BIOL	671	Immunology Lab	2					
ENTOM	305	Animal Health Entomology	2					
ENTOM	306	Animal Health Entomology Lab	51					
PLPTH	611	Ag Biotechnology Lab	3					
PLPTH	612	Genomics Applications	3					
PLPTH	613	Bioinformatics Apps	2					
* At least	one of	these biotech courses must be in	cluded in					
the select	4.							
	В	SUSINESS & ECONOMICS						
		(2 courses, total 6 hours)						
AGEC -	AGEC	202 to 420, 445 to 799						
ACCTG -	- ACC	TG 231 to 799						
FINAN –	Any c	ourse						
FSHS – F	SHS 1	05						
MANGT	– Any	course						
MKTG –	Any co	ourse						
		STATISTICS						
		(Select 1)	_					
STAT	325	Intro to Statistics	3					
STAT	340	Biometrics I	3					
STAT	350	Business & Econ Statistics	3					
	PH	YSICS/MATH/COMPUTERS						
	T 400	(Minimum 3 hours)						
ASI - AS	1 490	100 100 104 105						
CIS - CIS	5 101, 1	102, 103, 104, 105						
MATH –	MATH	1 205, 210, 211, 220, 221, 222						
PHYS-H	'HYS							
		COMMUNICATIONS						
		(Minimum 3 hours)						

SOCIO – Any course							
SOCWK – Any course							
DANCE -	Any c	ourse					
THTRE -	Any co	ourse					
WOMST -	– Any	course					
	I	BIOSCIENCES/BIOTECH					
ASI	200	Intro Research in ASI	1				
BIOL	455	General Microbiology	4				
		(Minimum 9 hours)					
CHM	230	Chemistry II	4				
CHM	350	General Organic Chemistry	3				
CHM	351	General Organic Chemistry Lab	2				
BIOCH	521	General Biochemistry	3				
BIOCH	522	General Biochemistry Lab	2				
		(Select 4 courses)					
ASI	598	Bioscience Internship in ASI 1	-6				
ASI	600	Applied Animal Biotechnology	2*				
ASI	658	Animal Growth & Development	t3				
PLPTH	610	Biotechnology	3*				
BIOL	450	Modern Genetics	3				
BIOL	510	Developmental Biology	3				
BIOL	511	Developmental Biology Lab	1				
BIOL	541	Cell Biology	3				
BIOL	625	Animal Parasitology	4				
BIOL	671	Immunology	4				
BIOL	671	Immunology Lab	2				
ENTOM	305	Animal Health Entomology	2				
ENTOM	306	Animal Health Entomology Lab	•1				
PLPTH	611	Ag Biotechnology Lab	3				
PLPTH	612	Genomics Applications	3				
PLPTH	613	Bioinformatics Apps	2				
* At least	one of	these biotech courses must be inc	cluded in				
the select 4							

PSYCH – Any course

BUSINESS & ECONOMICS

(2 courses, total 6 hours) AGEC - AGEC 202 to 420, 445 to 799 ACCTG – ACCTG 231 to 799 FINAN - Any course FSHS – FSHS 105 ENTRP - Any course MANGT - Any course MKTG – Any course STATISTICS (Select 1) STAT 325 Intro to Statistics 3 STAT 340 **Biometrics** I 3 STAT 350 Business & Econ Statistics 3 PHYSICS/MATH/COMPUTERS (Minimum 3 hours)

ASI – ASI 490 CIS – CIS 101, 102, 103, 104, 105 MATH – MATH 205, 210, 211, 220, 221, 222 PHYS – PHYS 113, 114 COMMUNICATIONS (Minimum 3 hours)

AGCOM – AGCOM 310, 400, 410, 590 & 610				AGCOM – AGCOM 310, 400, 410, 590 & 610			
COMM – COMM 311, 321, 322, 326				COMM – COMM 311, 321, 322, 326			
ENGL – ENGL 300, 516				ENGL – ENGL 300, 516			
MC - MO	C 110, 1	111, 112, 120, & 180		MC - MC	C 110, 1	111, 112, 120, & 180	
Modern I	Languag	ge – Any course in ARAB, CHIN	IE, FREN,	Modern I	Languag	ge – Any course in ARAB, CHIN	NE, FREN,
GRM, IT	'AL, JA	PAN, LATIN, PORT, RUSSN, S	SPAN,	GRM, IT	AL, JA	PAN, LATIN, PORT, RUSSN,	SPAN,
URDU				URDU			
		ANIMAL SCIENCE				ANIMAL SCIENCE	
ASI	102	Prin Animal Science	3	ASI	102	Prin Animal Science	3
ASI	105	Animal Sciences & Ind	1	ASI	105	Animal Sciences & Ind	1
ASI	106	Dairy/Poultry Lab	1	ASI	106	Dairy/Poultry Lab	1
ASI	107	Comp Anml/Horse Lab	1	ASI	107	Comp Anml/Horse Lab	1
ASI	318	Fund. of Nutrition	3	ASI	318	Fund. of Nutrition	3
ASI	400	Farm Animal Reproduction	<u>3</u>	ASI	400	Farm Animal Reproduction	3
ASI	401	Farm Animal Repro Lab	1	ASI	401	Farm Animal Repro Lab	1
ASI	500	Genetics	3	ASI	500	Genetics	3
ASI	520	Companion/Lab Animal Mngt	3	ASI	520	Companion/Lab Animal Mngt	3
ASI	533	Anatomy & Physiology	4	ASI	533	Anatomy & Physiology	4
ASI	580	ASI Seminar	1	ASI	580	ASI Seminar	1
		(Select 2 courses)				(Select 2 courses)	
ASI	315	Livestock & Meat Eval	3	ASI	315	Livestock & Meat Eval	3
ASI	320	Principles of Feeding	3	ASI	320	Principles of Feeding	3
ASI	350	Meat Science	3	ASI	350	Meat Science	3
ASI	361	Meat Animal Processing	2	ASI	361	Meat Animal Processing	2
ASI	405	Fund Milk Processing	3	ASI	405	Fund Milk Processing	3
ASI	510	Animal Breeding Principles	3	ASI	510	Animal Breeding Principles	3
ASI	540	Principles of Animal Disease	3	ASI	540	Principles of Animal Disease	3
ASI	595	Contemp Issues Anml Ag		ASI	595	Contemp Issues Anml Ag	3
ASI	601	Physiology of Lactation	3	ASI	601	Physiology of Lactation	3
ASI	608	Dairy Foods Processing & Tech	nnol (3)	ASI	608	Dairy Foods Processing & Tec	hnol (3)
ASI	640	Poultry Product Tech	3	ASI	640	Poultry Product Tech	3
ASI	655	Behavior Domestic Animals	3	ASI	655	Behavior Domestic Animals	3
ASI	695	Equine Exercise Physiology	3	ASI	695	Equine Exercise Physiology	3
FDSCI	600	Food Microbiology	2	FDSCI	600	Food Microbiology	2
		(Select 1 course)				(Select 1 course)	
ASI	515	Beef Science	3	ASI	515	Beef Science	3
ASI	521	Horse Science	3	ASI	521	Horse Science	3
ASI	524	Sheep/Meat Goat Science	3	ASI	524	Sheep/Meat Goat Science	3
ASI	535	Swine Science	3	ASI	535	Swine Science	3
ASI	621	Dairy Cattle Management	3	ASI	621	Dairy Cattle Management	3
ASI	645	Poultry Management	3	ASI	645	Poultry Management	3
Total hours required for graduation (126 credit hours)				Total hours required for graduation (126 credit hours)			

RATIONALE: With the addition of classes for the entrepreneurship minor there are sufficient courses in with the ENTRP pre-fix that may be of interest to our students. Our students have a restricted electives block that requires them to pick from courses in ACCTG, FINAN, MANGT, MKTG, AGEC, and ECON this would give them more options within that block.

IMPACT: In the ENTRP prefix course, we estimate there will be at most 10-20 students a year across all of our 6 options in ASI that would enroll. The College of Business Administration has been contacted.

EFFECTIVE DATE: Fall 2013

B.S. in Agriculture: Animal Sciences and Industry: Business Option

FROM:	TO:							
		GENERAL COURSES				GENERAL COURSES		
ASI	101	Animal Science Orientation -or-	1	ASI	101	Animal Science Orientation -or	- 1	
GENAG	200	College Careers	0	GENAG	200	College Careers	0	
CHM	110	General Chemistry	3	CHM	110	General Chemistry	3	
CHM	111	General Chemistry Lab	1	CHM	111	General Chemistry Lab	1	
BIOL	198	Principles of Biology	4	BIOL	198	Principles of Biology	4	
ECON	110	Prin Macro Economics	3	ECON	110	Prin Macro Economics	3	
ENGL	100	Expository Writing I	3	ENGL	100	Expository Writing I	3	
ENGL	200	Expository Writing II	3	ENGL	200	Expository Writing II	3	
MATH	100	College Algebra	3	MATH	100	College Algebra	3	
COMM	105	Public Speaking IA	2	COMM	105	Public Speaking IA	2	
		AGRICULTURE				AGRICULTURE		
AGEC	120	Ag Econ & Agribusiness	3	AGEC	120	Ag Econ & Agribusiness	3	
(Plus	2 cou	rses - 2 other AG Depts. min. 5	hours)	(Plus	s 2 cou	rses - 2 other AG Depts. min. 5	5 hours)	
(1 hour co	ourses	cannot be applied, cannot use c	ourses from	(1 hour c	ourses	cannot be applied, cannot use a	courses from	
AGEC)				AGEC)				
AGCOM	– AGC	COM 400		AGCOM	– AGC	COM 400		
AGEC – A	AGEC	460		AGEC – A	AGEC	460		
ASI – ASI	I 660			ASI – AS	I 660			
ATM – A	TM 16	0 to 329, 571, 572 to 661		ATM – A	TM 16	0 to 329, 571, 572 to 661		
AGRON -	- 220,	305, 330 to 385, 430, 501, 550,	630 to 660,	AGRON	- 220,	305, 330 to 385, 430, 501, 550,	, 630 to 660,	
681 to 790)			681 to 79	0			
FDSCI – I	FDSCI	302, 660, 690		FDSCI – FDSCI 302, 660, 690				
ENTOM -	– ENT	OM 250 or 301, 300, 305, 312,	314 to 620,	ENTOM – ENTOM 250 or 301, 300, 305, 312, 314 to 620,				
692 to 767	7			692 to 767				
GRSC – C	GRSC	10 0 to 120, 150, 305 to 510, 602	to 661, 710	GRSC – GRSC 10 <u>1 to 790</u>				
to 737, 75	0 to 78	5		HORT – HORT 201 to 525, 535 to 625, 706 to 751				
HORT – H	HORT	201 to 525, 535 to 625, 706 to 7	51	FOR – FOR 210 to 311, 330 to 375, 510, 520, 643				
FOR – FC	OR 210	to 311, 330 to 375, 510, 520, 64	3	RRES – RRES 210 to 490, 521 to 705				
RRES – R	RES 2	10 to 490, 521 to 705		PLPTH – PLPTH 500 to 745				
PLPTH –	PLPTI	H 500 to 745		GENAG – GENAG 450, 505				
GENAG -	- GEN	AG 450, 505		BIOSCIENCES				
		BIOSCIENCES		ASI	500	Genetics	3	
ASI	500	Genetics	3	ASI	533	Anatomy & Physiology	4	
ASI	533	Anatomy & Physiology	4		HUN	IANITIES/SOCIAL SCIENC	E	
	HUN	IANITIES/SOCIAL SCIENCE	£		_	(Minimum 9 hours)		
		(Minimum 9 hours)		(M	ust be	taken from more than one depart	ment)	
(Mi	ust be	taken from more than one depart	ment)	(.	Maxim	ium 3 hours in performance cour	ses)	
1)	Maxim	um 3 hours in performance cours	ses)	AMETH	– AME	ETH 160 to 501		
AMETH -	– AME	TH 160 to 501		ANTH - A	Any co	and		
ANIH - A	Any co	urse		ARCH –	ARCH	301		
ARCH – ARCH 301			AKI – AI	ny coui	Se 120 / 200 225 / 420 405	(00)		
ART - Any course			DANCE -	- DAN	CE 120 to 200, 225 to 420, 495	to 690		
DANCE – DANCE 120 to 200, 225 to 420, 495 to 690			DEN – DEN 325, 450					
$\frac{DEN - DEN 323}{ECON} = \frac{ECON 120}{700}$			ECON - ECON 120-799					
EUUN - EUUN 120-799 ENCL ENCL 150 210 to 200 210 220 to 200 420 to			ENGL – ENGL 150, 210 to 299, 310, 320 to 399, 420 to					
ENGL – ENGL 150, 210 to 299, 310, 320 to 399, 420 to			499, 536 to 599, 605 to 660, 670 to 695, 700 to 760, 790 to					
499, 536 to 599, 605 to 660, 670 to 695, 700 to 760, 790 to				799 ENIVE ENIVE 250 251				
י רעאר די די		250 251		ENVD – ENVD 250, 251 CEOC – CEOC 100, 200, 201, 200 to 700				
		230, 231 100, 200, 201, 200 to 700		UEUU -	GEUG	100, 200, 201, 300 to 799		
GEUG – (GEOG – GEOG 100, 200, 201, 300 to 799				HISI – Any course			

HIST – Any course									
FSHS – Any course									
MUSIC – Any course									
Modern Language – Any course in ARAB, CHINE, FREN,									
GRM, ITAL, JAPAN, LATIN, PORT, RUSSN, SPAN,									
URDU									
PHILO – Any c	ourse								
POLSC – Any o	course								
PSYCH – Any	course								
SOCIO – Any c	course								
SOCWK – Any	course								
DANCE – Any	course								
THTRE – Any	course								
WOMST – Any	course								
]	BUSINESS & ECONOMICS								
ACCTG 231	Acctg for Bus Ops	3							
ACCTG 241	Acctg for Inv & Fin	3							
(plus 6 courses, min, 18 hours)	-							
AGEC - AGEC	C 202 to 420, 445 to 799								
ACCTG – ACC	TG 331 to 799								
ECON – ECON	500 to 799								
FINAN – Any o	course								
FSHS – FSHS	05								
MANGT – Any	course								
MKTG – Anv c	ourse								
MA	TH/STATISTICS/COMPUTER	S							
	(Minimum 3 hours)								
ASI – ASI 490	(
CIS - CIS 101	102 103 104								
MATH – MAT	H 150 205 210 211 220 221 2	22							
STAT - STAT	320 325 330 340 350								
SIMI SIMI									
	(Minimum 3 hours)								
AGCOM - AG	$COM 310 \ 400 \ 410 \ 590 \ 610 \ 71$	2							
COMM - COM	M 311 321 322 326	2							
ENGL – ENGL	300 516								
GENAG - 450	500, 510								
MC = MC 110	111 112 120 180								
Modern Langua	A = A = A = C = C = C = C = C = C = C =	JE EREN							
GRM ITAL LA	APAN I ATIN PORT RUSSN (SPAN							
URDU	$\mathbf{H}_{\mathbf{M}}, \mathbf{L}_{\mathbf{M}}, \mathbf{H}_{\mathbf{M}}, H$	JI AIN,							
UNDU	ANIMAL SCIENCE								
ASI 102	Principles of Animal Science	3							
ASI 318	Fund of Nutrition	3							
ASI 320	Principles of Feeding	3							
ASI 400	Farm Animal Reproduction	3							
ASI 580	A SI Seminar	1							
ASI 500	(Select 2 courses)	1							
ASI 105	Animal Sciences & Ind	1							
ASI 105	Dairy/Poultry Lab	1							
$\Delta SI = 107$	Companion Apml/Horse Lab	1							
10/	(Select 1 course)	1							
ASI 350	Meat Science	3							
ASI 261	Meat Animal Processing	2							
	Fund Milk Processing	∠ 3							
	Poultry Product Tech	3							
(3) 11 (14)		,							

FSHS – Any course MUSIC – Any course Modern Language - Any course in ARAB, CHINE, FREN, GRM, ITAL, JAPAN, LATIN, PORT, RUSSN, SPAN, URDU PHILO – Any course POLSC - Any course PSYCH - Any course SOCIO - Any course SOCWK - Any course DANCE - Any course THTRE – Any course WOMST - Any course **BUSINESS & ECONOMICS** ACCTG 231 Acctg for Bus Ops 3 ACCTG 241 Acctg for Inv & Fin 3 (plus 6 courses, min. 18 hours) AGEC - AGEC 202 to 420, 445 to 799 ACCTG - ACCTG 331 to 799 ECON - ECON 500 to 799 FINAN – Any course FSHS – FSHS 105 ENTRP - Any course MANGT - Any course MKTG - Any course MATH/STATISTICS/COMPUTERS (Minimum 3 hours) ASI - ASI 490 CIS – CIS 101, 102, 103, 104 MATH - MATH 150, 205, 210, 211, 220, 221, 222 STAT - STAT 320, 325, 330, 340, 350 **COMMUNICATIONS** (Minimum 3 hours) AGCOM - AGCOM 310, 400, 410, 590, 610, 712 COMM – COMM 311, 321, 322, 326 ENGL - ENGL 300, 516 **GENAG - 450** MC - MC 110, 111, 112, 120, 180 Modern Language - Any course in ARAB, CHINE, FREN, GRM, ITAL, JAPAN, LATIN, PORT, RUSSN, SPAN, URDU ANIMAL SCIENCE ASI 102 Principles of Animal Science 3 3 Fund. of Nutrition ASI 318 3 ASI 320 Principles of Feeding ASI 400 Farm Animal Reproduction 3 ASI 580 **ASI** Seminar 1 (Select 2 courses) ASI 105 Animal Sciences & Ind 1 ASI 106 Dairy/Poultry Lab 1 ASI 107 Companion Anml/Horse Lab 1 (Select 1 course) ASI 350 Meat Science 3

Meat Animal Processing

Fund Milk Processing

Poultry Product Tech

2

3

3

ASI

ASI

ASI

361

405

640

FDSC	CI 305	Fund of Food Processing 3	FDS	CI 305	Fund of Food Processing	3
		(Select 2 courses)			(Select 2 courses)	
ASI	515	Beef Science 3	ASI	515	Beef Science	3
ASI	520	Companion/Lab Anml Mngt 3	ASI	520	Companion/Lab Anml Mngt	3
ASI	521	Horse Science 3	ASI	521	Horse Science	3
ASI	524	Sheep/Meat Goat Science 3	ASI	524	Sheep/Meat Goat Science	3
ASI	535	Swine Science 3	ASI	535	Swine Science	3
ASI	621	Dairy Cattle Management 3	ASI	621	Dairy Cattle Management	3
ASI	645	Poultry Management 3	ASI	645	Poultry Management	3
		(Minimum 9 hours)			(Minimum 9 hours)	
ASI	315	Livestock & Meat Eval 3	ASI	315	Livestock & Meat Eval	3
ASI	401	Farm Animal Repro Lab 1	ASI	401	Farm Animal Repro Lab	1
ASI	504	Equine Repro Mngt 3	ASI	504	Equine Repro Mngt	3
ASI	510	Animal Breeding Pr. 3	ASI	510	Animal Breeding Pr.	3
ASI	512	Bovine Repro Tech 2	ASI	512	Bovine Repro Tech	2
ASI	540	Principles of Animal Disease 3	ASI	540	Principles of Animal Disease	3
ASI	595	Contemp Issues ASI 3	ASI	561	Undergrad Research in ASI	0-3
ASI	600	Applied Animal Biotech 2	ASI	595	Contemp Issues ASI	3
ASI	601	Physiology of Lactation 3	ASI	600	Applied Animal Biotech	2
ASI	602	Equine Breeding/Genetics 2	ASI	601	Physiology of Lactation	3
ASI	608	Dairy Foods Process & Technol 3	ASI	602	Equine Breeding/Genetics	2
ASI	610	Processed Meat Ops 2	ASI	608	Dairy Foods Process & Technol	ol 3
ASI	620	Lvstk Prod & Mngmt 2	ASI	610	Processed Meat Ops	2
ASI	650	Id Data Management 2	ASI	620	Lvstk Prod & Mngmt	2
ASI	655	Behavior Domst Anml 3	ASI	650	Id Data Management	2
ASI	658	Animal Growth & Development3	ASI	655	Behavior Domst Anml	3
ASI	662	Special Topics Animal Science0-6	ASI	658	Animal Growth & Developme	nt3
ASI	675-679	Non-Ruminant Modules 1-4	ASI	662	Special Topics Animal Science	e0-6
ASI	680-685	Ruminant Modules 1-6	ASI	675-679	Non-Ruminant Modules	1- <u>5</u>
ASI	695	Equine Exercise Physiol 3	ASI	680-685	Ruminant Modules	1-6
ASI	710	Phys Repro Farm Anml 3	ASI	695	Equine Exercise Physiol	3
ASI	777	Meat Technology 3	ASI	710	Phys Repro Farm Anml	3
			ASI	777	Meat Technology	3
Tota	l hours req	uired for graduation (126 credit hours)	<u>CS</u>	610	Feedlot Health Systems	2
			<u>CS</u>	611	Cow/Calf Health Systems	2
			Tota	l hours req	uired for graduation (126 cree	lit hours)

RATIONALE: With the addition of classes for the entrepreneurship minor there are sufficient courses in with the ENTRP pre-fix that may be of interest to our students. Our students have a restricted electives block that requires them to pick from courses in ACCTG, FINAN, MANGT, MKTG, AGEC, and ECON this would give them more options within that block.

With the proposed addition of ASI 561, Undergraduate Research in Animal Science, we would also like to propose that the course be used in the "Select 18 hours" block of animal and food science related courses. This would be consistent the university's 2025 plan to encourage undergraduate research.

CS 610, Feedlot Health Systems and CS 611, Cow/Calf Health Systems were developed as part of our Feedlot Management Certificate and Ranch Management Certificate programs in Animal Sciences & Industry. The courses are primarily taken by ASI majors and the content of these courses are in line with our other ASI courses. ASI 677 would be part of the non-ruminant module series that currently exists and would be a logical fit for the "Select 9 hours" in Animal Science block.

IMPACT: In the ENTRP prefix course, we estimate there will be at most 10-20 students a year across all of our 6 options in ASI that would enroll. The College of Business Administration has been contacted.

The addition of ASI 561 to our curriculum should have no impact on other departments.

Adding CS 610 and 611 to our "Select 9 hours" in ASI should have no impact on the Clinical Sciences Department as our students are already filling the classes to capacity. The Department of Clinical Sciences has been contacted.

EFFECTIVE DATE: Fall 2013

B.S. in Agriculture: Animal Science & Industry: Communications O	ption
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FROM:	1: TO:							
GENERAL COURSES					GENERAL COURSES			
ASI	101	Animal Science Orientation -or	a 1	ASI	101	Animal Science Orientation	1 –or- 1	
GENAG	200	College Careers	0	GENAG	200	College Careers	0	
CHM	110	General Chemistry	3	CHM	110	General Chemistry	3	
CHM	111	General Chemistry Lab	1	CHM	111	General Chemistry Lab	1	
BIOL	198	Principles of Biology	4	BIOL	198	Principles of Biology	4	
ECON	110	Prin Macro Economics	3	ECON	110	Prin Macro Economics	3	
ENGL	100	Expository Writing I	3	ENGL	100	Expository Writing I	3	
ENGL	200	Expository Writing II	3	ENGL	200	Expository Writing II	3	
MATH	100	College Algebra	3	MATH	100	College Algebra	3	
COMM	105	Public Speaking IA	2	COMM	105	Public Speaking IA	2	
		AGRICULTURE				AGRICULTURE		
(Se	lect 4 co	ourses - 2 other AG Depts. min. 11	hours)	(Se	lect 4 co	ourses - 2 other AG Depts. min	. 11 hours)	
(1 hour	courses	cannot be applied, cannot use	courses from	(1 hour of	courses	cannot be applied, cannot u	se courses from	
AGCOM)				AGCOM)				
ASI – ASI	660			ASI – ASI 660				
ATM - A'	IM 160	to 329, 5/1, 5/2 to 661	0. 710	ATM - A	IM 160	to 329, 571, 572 to 661	(22, 712	
AGEC - A	AGEC I	20 to 420, 460,500 to 525, 590 to 6:	52, 712	AGEC - AGECC - AGEC -	AGEC I	20 to 420, 460,500 to 525, 590 to	0 632, /12	
AGRON – 220, 305, 330 to 385, 430, 501, 550, 630 to 660, 681 to 790			AGRON - 790	- 220, 3	05, 330 to 385, 430, 501, 550, 6	530 to 660, 681 to		
FDSCI – I	FDSCI 3	302, 305, 660, 690		FDSCI – H	FDSCI 3	802, 305, 660, 690		
ENTOM -	- ENTO	M 250 or 301, 300, 305, 312, 314	to 620, 692 to	ENTOM -	- ENTO	M 250 or 301, 300, 305, 312, 3	14 to 620, 692 to	
767			767			,		
GRSC – C	RSC 10) 0 to 120, 150, 305 to 510, 602 to 6 6	51, 710 to 737,	GRSC – C	RSC 10) <u>1 to 790</u>		
750 to 785	i			HORT – HORT 201 to 525, 535 to 625, 706 to 751				
HORT – H	IORT 2	01 to 525, 535 to 625, 706 to 751		FOR – FOR 210 to 311, 330 to 375, 510, 520, 643				
FOR – FO	R 210 t	o 311, 330 to 375, 510, 520, 643		RRES – RRES 210 to 490, 521 to 705				
RRES – RRES 210 to 490, 521 to 705			PLPTH – PLPTH 500 to 745					
PLPTH – PLPTH 500 to 745			GENAG – GENAG 450, 505					
GENAG – GENAG 450, 505			HUMANITIES/SOCIAL SCIENCE					
HUMANITIES/SOCIAL SCIENCE			(Minimum 9 hours)					
(Must be taken from more than one department)			(Maximum 2 hours in performance courses)					
(Maximum 2 hours in performance courses)			AMETH AMETH 160 to 501					
$\Delta METH = \Delta METH 160 \text{ to } 501$			ANTH – Any course					
ANTH – Any course			ARCH - ARCH 301					
ARCH – ARCH 301				ART – An	y cours	e		

ART – Any course				DANCE – DANCE 120 to 200, 225 to 420, 495 to 690				
DANCE – DANCE 120 to 200, 225 to 420, 495 to 690			DEN – DEN 325, 450					
DEN – DEN 325, 450				ECON - ECON 120-799				
ECON - ECON 120-799				ENGL -	ENGL 15	i0, 210 to 299, 310, 320 to 399, 420	to 499, 536	
ENGL -	- ENGL 1	50, 210 to 299, 310, 320 to 399, 420	to 499, 536	to 599, 6	05 to 660,	, 670 to 695, 700 to 760, 790 to 799		
to 599,	605 to 660	, 670 to 695, 700 to 760, 790 to 799		ENVD –	ENVD 2	50, 251,		
ENVD	– ENVD 2	50, 251,		GEOG –	GEOG 10	00, 200, 201, 300 to 799		
GEOG	– GEOG 1	00, 200, 201, 300 to 799		HIST - A	Any course	e		
HIST –	Any cours	e		FSHS –	Any cour	se		
FSHS –	Any cour	se		MUSIC	– Any cou	urse		
MUSIC	– Any co	urse		Modern	Language	– Any course in ARAB, CHINE, FI	REN, GRM,	
Modern	Language	– Any course in ARAB, CHINE, F	REN, GRM,	ITAL, JAPAN, LATIN, PORT, RUSSN, SPAN, URDU				
DIIIAL, J	APAN, LA	ATIN, PORT, RUSSN, SPAN, URL	00	PHILO – Any course				
PHILU	- Any cou	rse		POLSC -	- Any cou	rse		
POLSC	- Any col			SOCIO	- Any cou	n se		
SOCIO	$-\Delta ny$ col			SOCWK	$= \Delta n v co$	urse		
SOCW	K = Anv co	burse		DANCE	- Any col	urse		
DANCE	E - Anv co	urse		THTRE	– Any cou	Irse		
THTRE	- Any co	urse		WOMST	$\Gamma - Any co$	burse		
WOMS	T – Any co	ourse			B	USINESS & ECONOMICS		
	Ē	SUSINESS & ECONOMICS		ACCTO	G 231	Acctg for Bus Ops	3	
ACCT	G 231	Acctg for Bus Ops	3		(p)	lus 1 course, minimum 3 hours)		
	(p	lus 1 course, minimum 3 hours)		AGEC -	AGEC 20	02 to 420, 445 to 799		
AGEC	- AGEC 2	02 to 420, 445 to 799		ACCTG	- ACCTC	G 241 to 799		
ACCTO	G – ACCTO	G 241 to 799		FINAN -	- Any cou	rse		
FINAN	- Any cou	Irse		FSHS – I	FSHS 105			
FSHS –	FSHS 105	5		ENTRP -	 Any cou 	rse		
MANG	T – Any co	ourse		MANGT – Any course				
MKTG	 Any cou 	rse		MKTG – Any course				
MATH/STATISTICS/COMPUTERS			MA	TH/STATISTICS/COMPUTERS				
A 51 A	ST 400	(Minimum 3 hours)		1 21 19	ST 400	(Minimum 3 nours)		
ASI - A	101 101 10	2 103 104		ASI - AS	SI 490 S 101 10	2 103 104		
MATH $=$ MATH 150 205 210 211 220 221 222			MATH_	_ ΜΔΤΗ 1	50 205 210 211 220 221 222			
STAT – STAT 320 325 330 340 350			STAT -	STAT 32), 325, 330, 340, 350			
~	~	COMMUNICATIONS		~		COMMUNICATIONS		
MC	110	Mass Comm in Society	3	MC	110	Mass Comm in Society	3	
MC	200	News & Feature Writing	3	MC	200	News & Feature Writing	3	
MC	241	Editing	3	MC	241	Editing	3	
MC	303	Adv News & Feature Writing	3	MC	303	Adv News & Feature Writing	3	
MC	341	News Design	3	MC	341	News Design	3	
MC	466	Law of Mass Communications	3	MC	466	Law of Mass Communications	3	
		(Select 1)	-			(Select 1)	-	
MC	111	Journalism in a Free Society	3	MC	111	Journalism in a Free Society	3	
MC	112	Web Comm in Society	3	MC	112	Web Comm in Society	3	
MC	120	Principles of Advertising	3	MC	120	Principles of Advertising	3	
MC	180	Fund of Public Relations	3	MC	180	Fund of Public Relations	3	
		(Minimum 3 hours)				(Minimum 3 hours)		
MC – N	IC 400 to 7	799		MC – M	C 400 to 7	799		
		(Minimum 3 hours)				(Minimum 3 hours)		
AGCON	M – Any C	ourse		AGCOM	I – Any C	ourse		
COMM – Any Course		COMM – Any Course						
MU – Any Course			MC – Ar	ny Course				
A GT	100	ANIMAL SCIENCE	2	AGT	102	ANIMAL SCIENCE	2	
ASI	102	Principles of Animal Science	5	ASI	102	Principles of Animal Science	3	
ASI	318	Fundamentals of Nutrition	5	ASI	318	Fundamentals of Nutrition	3	
ASI	400	Farm Animal Reproduction	5 2	ASI	400	Farm Animal Reproduction	<u>5</u>	
ASI	500	Genetics	3	ASI	500	Genetics	5	
ASI	555	Anatomy & Physiology	4	ASI	555	Anatomy & Physiology	4	
ASI	280	ASI Seminar	1	ASI	280	ASI Seminar	1	

		(Select 1 course)				(Select 1 course)	
ASI	105	Animal Sciences & Ind Lab	1	ASI	105	Animal Sciences & Ind Lab	1
ASI	106	Dairy/Poultry Lab	1	ASI	106	Dairy/Poultry Lab	1
ASI	107	Companion Anml/Horse Lab	1	ASI	107	Companion Anml/Horse Lab	1
		(Select 1 course)				(Select 1 course)	
ASI	350	Meat Science	3	ASI	350	Meat Science	3
ASI	361	Meat Animal Processing	2	ASI	361	Meat Animal Processing	2
ASI	405	Fund Milk Processing	3	ASI	405	Fund Milk Processing	3
ASI	640	Poultry Product Tech	3	ASI	640	Poultry Product Tech	3
FDSC	I 305	Fund of Food Processing	3	FDSC	I 305	Fund of Food Processing	3
		(Select 2 courses)				(Select 2 courses)	
ASI	515	Beef Science	3	ASI	515	Beef Science	3
ASI	520	Companion/Lab Anml Mngt	3	ASI	520	Companion/Lab Anml Mngt	3
ASI	521	Horse Science	3	ASI	521	Horse Science	3
ASI	524	Sheep/Meat Goat Science	3	ASI	524	Sheep/Meat Goat Science	3
ASI	535	Swine Science	3	ASI	535	Swine Science	3
ASI	621	Dairy Cattle Management	3	ASI	621	Dairy Cattle Management	3
ASI	645	Poultry Management	3	ASI	645	Poultry Management	3
		(Minimum 9 hours)				(Minimum 9 hours)	
ASI	315	Livestock & Meat Eval	3	ASI	315	Livestock & Meat Eval	3
ASI	320	Principles of Feeding	3	ASI	320	Principles of Feeding	3
ASI	401	Farm Animal Repro Lab	1	ASI	401	Farm Animal Repro Lab	1
ASI	504	Equine Reproductive Mngt	3	ASI	504	Equine Reproductive Mngt	3
ASI	510	Animal Breeding Principles	3	ASI	510	Animal Breeding Principles	3
ASI	512	Bovine Reproductive Tech	2	ASI	512	Bovine Reproductive Tech	2
ASI	540	Principles of Animal Disease	3	ASI	540	Principles of Animal Disease	3
ASI	595	Contemporary Issues in ASI	3	ASI	561	Undergrad Research in ASI	0-3
ASI	601	Physiology of Lactation	3	ASI	595	Contemporary Issues in ASI	3
ASI	602	Equine Breeding/Genetics	2	ASI	601	Physiology of Lactation	3
ASI	608	Dairy Foods Process & Technol	3	ASI	602	Equine Breeding/Genetics	2
ASI	610	Processed Meat Operations	2	ASI	608	Dairy Foods Process & Technol	3
ASI	620	Livestock Production Mngt	2	ASI	610	Processed Meat Operations	2
ASI	650	I.D. Data Management	2	ASI	620	Livestock Production Mngt	2
ASI	655	Behavior of Domestic Animals	3	ASI	650	I.D. Data Management	2
ASI	658	Animal Growth & Development	3	ASI	655	Behavior of Domestic Animals	3
ASI	662	Special Topics Animal Science	0-6	ASI	658	Animal Growth & Development	3
ASI	675-679	Non-Ruminant Ntrtn Modules 1	-4	ASI	662	Special Topics Animal Science	0-6
ASI	680-685	Ruminant Nutrition Modules 1	-6	ASI	675-679	Non-Ruminant Ntrtn Modules	1- <u>5</u>
ASI	695	Equine Exercise Physiology	3	ASI	680-685	Ruminant Nutrition Modules	1-6
ASI	710	Phys Repro Farm Animals	3	ASI	695	Equine Exercise Physiology	3
ASI	777	Meat Technology	3	ASI	710	Phys Repro Farm Animals	3
			ASI	777	Meat Technology	3	
Total hours required for graduation (126 credit hours)			<u>CS</u>	610	Feedlot Health Systems	2	
				<u>CS</u>	611	Cow/Calf Health Systems	2
				Total	hours req	uired for graduation (126 cred	it hours)

RATIONALE: With the addition of classes for the entrepreneurship minor there are sufficient courses in with the ENTRP pre-fix that may be of interest to our students. Our students have a restricted electives block that requires them to pick from courses in ACCTG, FINAN, MANGT, MKTG, AGEC, and ECON this would give them more options within that block.

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EFFECTIVE DATE: Fall 2013

B.S. in Agriculture:	Animal Science	& Industry:	Production/Management	Option

FROM:	M: TO:						
		GENERAL COURSES				GENERAL COURSES	
ASI	101	Animal Science Orientation -OR-	1	ASI	101	Animal Science Orientation -OR-	1
GENAG	200	College Careers	0	GENAG	200	College Careers	0
CHM	110	General Chemistry	3	CHM	110	General Chemistry	3
CHM	111	General Chemistry Lab	1	CHM	111	General Chemistry Lab	1
BIOL	198	Principles of Biology	4	BIOL	198	Principles of Biology	4
ECON	110	Prin Macro Economics	3	ECON	110	Prin Macro Economics	3
ENGL	100	Expository Writing I	3	ENGL	100	Expository Writing I	3
ENGL	200	Expository Writing II	3	ENGL	200	Expository Writing II	3
MATH	100	College Algebra	3	MATH	100	College Algebra	3
COMM	105	Public Speaking IA	2	COMM	105	Public Speaking IA	2
		AGRICULTURE				AGRICULTURE	
AGEC	120	Ag Econ & Agribusiness	3	AGEC	120	Ag Econ & Agribusiness	3
(Plus 3 courses - 2 other AG Depts. min. 8 hours)			hours)	(Plus	3 cou	rses - 2 other AG Depts. min. 8	hours)
(1 hour courses cannot be applied)				(1 ł	nour courses cannot be applied)		
AGCOM – AGCOM 400			AGCOM -	– AGC	COM 400		
AGEC – AGEC 120 to 420,460, 500 to 525, 590 to 632, 712			AGEC – A	AGEC	120 to 420,460, 500 to 525, 590	to 632, 712	
ASI – ASI 660			ASI – ASI	[660			
ATM – ATM 160 to 329, 571, 572 to 661				$ATM - A^{T}$	TM 16	0 to 329, 571, 572 to 661	
AGRON -	- 220,	305, 330 to 385, 430, 501, 550,	630 to 660,	AGRON -	- 220,	305, 330 to 385, 430, 501, 550,	630 to 660,
681 to 790				681 to 790			
FDSCI – FDSCI 302, 660, 690			FDSCI – FDSCI 302, 660, 690				
ENTOM – ENTOM 250 or 301, 300, 305, 312, 314 to 620,			ENTOM – ENTOM 250 or 301, 300, 305, 312, 314 to 620,				
692 to 767			692 to 767				
GRSC – GRSC 10 0 to 120, 150, 305 to 510, 602 to 661, 710			GRSC – GRSC 10 <u>1 to 790</u>				
t o 737, 750 to 785			HORT – HORT 201 to 525, 535 to 625, 706 to 751				
HORT – H	IORT	201 to 525, 535 to 625, 706 to 75	51	FOR – FOR 210 to 311, 330 to 375, 510, 520, 643			
FOR – FO	R 210	to 311, 330 to 375, 510, 520, 64	3	RRES – R	RES 2	10 to 490, 521 to 705	
RRES - RRES 210 to 490, 521 to 705 PLPTH – PLPTH 500 to 745 GENAG - GENAG 450, 505 BIOSCIENCES BIOCH 265 Intro Org & BioChem 5 HUMANITIES/SOCIAL SCIENCE (Minimum 9 hours) (Must be taken from more than one department) (Maximum 3 hours in performance courses) AMETH - AMETH 160 to 501 ANTH - Any course ARCH - ARCH 301 ART - Any course DANCE – DANCE 120 to 200, 225 to 420, 495 to 690 DEN – DEN 325, 450 ECON - ECON 120-799 ENGL – ENGL 150, 210 to 299, 310, 320 to 399, 420 to 499, 536 to 599, 605 to 660, 670 to 695, 700 to 760, 790 to 799 ENVD - ENVD 250, 251 GEOG - GEOG 100, 200, 201, 300 to 799 HIST - Any course FSHS - Any course MUSIC - Any course Modern Language - Any course in ARAB, CHINE, FREN, GRM, ITAL, JAPAN, LATIN, PORT, RUSSN, SPAN, URDU PHILO - Any course POLSC - Any course PSYCH - Any course SOCIO - Any course SOCWK - Any course DANCE - Any course THTRE - Any course WOMST - Any course **BUSINESS & ECONOMICS** (Select 1 course) ACCTG 231 3 Acctg for Bus Ops 308 Farm & Ranch Mngmt AGEC 3 (plus 4 courses, min. 12 hours) AGEC - AGEC 202 to 420, 445 to 799 ACCTG - ACCTG 241 to 799 ECON - ECON 500 to 799 FINAN - Any course FSHS – FSHS 105 MANGT - Any course MKTG - Anv course MATH/STATISTICS/COMPUTERS (Minimum 3 hours) ASI - ASI 490CIS - CIS 101, 102, 103, 104 MATH - MATH 150, 205, 210, 211, 220, 221, 222 STAT - STAT 320, 325, 330, 340, 350 **COMMUNICATIONS** (Minimum 3 hours) AGCOM – AGCOM 310, 400, 410, 590, 610, 712

PLPTH - PLPTH 500 to 745 GENAG - GENAG 450. 505 BIOSCIENCES 265 Intro Org & BioChem BIOCH 5 HUMANITIES/SOCIAL SCIENCE (Minimum 9 hours) (Must be taken from more than one department) (Maximum 3 hours in performance courses) AMETH - AMETH 160 to 501 ANTH - Any course ARCH - ARCH 301 ART – Any course DANCE – DANCE 120 to 200, 225 to 420, 495 to 690 DEN - DEN 325, 450 ECON - ECON 120-799 ENGL – ENGL 150, 210 to 299, 310, 320 to 399, 420 to 499, 536 to 599, 605 to 660, 670 to 695, 700 to 760, 790 to 799 ENVD - ENVD 250, 251 GEOG - GEOG 100, 200, 201, 300 to 799 HIST - Any course FSHS - Any course MUSIC – Any course Modern Language - Any course in ARAB, CHINE, FREN, GRM, ITAL, JAPAN, LATIN, PORT, RUSSN, SPAN, URDU PHILO – Any course POLSC - Any course PSYCH - Any course SOCIO - Any course SOCWK - Any course DANCE – Any course THTRE - Any course WOMST - Any course **BUSINESS & ECONOMICS** (Select 1 course) Acctg for Bus Ops ACCTG 231 3 AGEC 308 Farm & Ranch Mngmt 3 (plus 4 courses, min. 12 hours) AGEC - AGEC 202 to 420, 445 to 799 ACCTG - ACCTG 241 to 799 ECON - ECON 500 to 799 FINAN - Any course FSHS - FSHS 105 ENTRP – Any course MANGT - Any course MKTG - Anv course MATH/STATISTICS/COMPUTERS (Minimum 3 hours) ASI - ASI 490 CIS - CIS 101, 102, 103, 104 MATH - MATH 150, 205, 210, 211, 220, 221, 222 STAT - STAT 320, 325, 330, 340, 350 **COMMUNICATIONS** (Minimum 3 hours) AGCOM - AGCOM 310, 400, 410, 590, 610, 712

COM	M – COM	M 311, 321, 322, 326		COM	M – COMI	M 311, 321, 322, 326	
ENGL	L – ENGL	300, 516		ENG	L – ENGL 1	300, 516	
GENA	AG - 450			GEN	AG - 450		
MC –	MC 110, 1	111, 112, 120, 180		MC –	MC 110, 1	11, 112, 120, 180	
Mode	rn Languas	ge – Any course in ARAB. CHI	VE. FREN.	Mode	rn Languag	ge – Any course in ARAB. CHIN	JE. FREN.
GRM	ITAL. JA	PAN, LATIN, PORT, RUSSN,	SPAN.	GRM	. ITAL. JA	PAN, LATIN, PORT, RUSSN, S	SPAN.
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CILLO	0	ANIMAL SCIENCE		ORD	0	ANIMAL SCIENCE	
ASI	102	Prin Animal Science	3	ASI	102	Prin Animal Science	3
	318	Fund of Nutrition	3		318	Fund of Nutrition	3
	320	Principles of Feeding	3		320	Principles of Feeding	3
	400	Farm Animal Paproduction	3	ASI	400	Form Animal Poproduction	3
ASI	400 500	Constian	<u>3</u>	ASI	400 500	Constiss	$\frac{3}{2}$
ASI	510	Animal Broading Dr	3	ASI	510	Animal Dreading Dr	2
ASI	510	Aminal Breeding Pr.	5	ASI	510	Annual Dreeding PL.	3
ASI	555	Anatomy & Physiology	4	ASI	535	Anatomy & Physiology	4
ASI	580	ASI Seminar	1	ASI	580	ASI Seminar	1
ACT	105	(Select 2 courses)	1	AGT	105	(Select 2 courses)	1
ASI	105	Animal Sciences & Ind Lab	1	ASI	105	Animal Sciences & Ind Lab	1
ASI	106	Dairy/Poultry Lab	1	ASI	106	Dairy/Poultry Lab	1
ASI	107	Companion Anml/Horse Lab	1	ASI	107	Companion Anml/Horse Lab	I
		(Select 1 course)	_			(Select 1 course)	_
ASI	350	Meat Science	3	ASI	350	Meat Science	3
ASI	361	Meat Animal Processing	2	ASI	361	Meat Animal Processing	2
ASI	405	Fund Milk Processing	3	ASI	405	Fund Milk Processing	3
ASI	640	Poultry Product Tech	3	ASI	640	Poultry Product Tech	3
FDSC	CI 305	Fund of Food Processing	3	FDSC	CI 305	Fund of Food Processing	3
		(Select 2 courses)				(Select 2 courses)	
ASI	515	Beef Science	3	ASI	515	Beef Science	3
ASI	520	Companion/Lab Anml Mngt	3	ASI	520	Companion/Lab Anml Mngt	3
ASI	521	Horse Science	3	ASI	521	Horse Science	3
ASI	524	Sheep/Meat Goat Science	3	ASI	524	Sheep/Meat Goat Science	3
ASI	535	Swine Science	3	ASI	535	Swine Science	3
ASI	621	Dairy Cattle Management	3	ASI	621	Dairy Cattle Management	3
ASI	645	Poultry Management	3	ASI	645	Poultry Management	3
		(Minimum 9 hours)				(Minimum 9 hours)	
ASI	315	Livestock & Meat Eval	3	ASI	315	Livestock & Meat Eval	3
ASI	401	Farm Animal Repro Lab	1	ASI	401	Farm Animal Repro Lab	1
ASI	504	Equine Repro Mngt	3	ASI	504	Equine Repro Mngt	3
ASI	512	Bovine Repro Tech	2	ASI	512	Bovine Repro Tech	2
ASI	540	Principles of Animal Disease	3	ASI	540	Principles of Animal Disease	3
ASI	561	Undergrad Research in ASI	0-3	ASI	561	Undergrad Research in ASI	0-3
ASI	595	Contemp Issues ASI	3	ASI	595	Contemp Issues ASI	3
ASI	600	Applied Animal Biotech	2	ASI	600	Applied Animal Biotech	2
ASI	601	Physiology of Lactation	3	ASI	601	Physiology of Lactation	3
ASI	602	Equine Breeding/Genetics	2	ASI	602	Equine Breeding/Genetics	2
ASI	608	Dairy Foods Process & Techno	13	ASI	608	Dairy Foods Process & Techno	13
ASI	610	Processed Meat Ons	2	ASI	610	Processed Meat Ons	2
ASI	620	I vstk Prod & Mngmt	2	ASI	620	I vetk Prod & Mngmt	$\frac{2}{2}$
ASI	650	Id Data Management	2	ASI	650	Id Data Management	$\frac{2}{2}$
	655	Rehavior of Domestic Animals	2		655	Behavior of Domestic Animals	2
721	658	Animal Growth & Dovalopment	nt3	AGI	658	Animal Growth & Dovalormar	J 113
ASI	660	Spacial Tonics Animal Science	n.5 0.6	A01 A01	660	Special Topics Animal Science	n.) 0.6
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ASI	777	Meat Technology	3	ASI	777	Meat Technology	3
Total ho	urs req	uired for graduation ((126 credit hours)	CS	610	Feedlot Health Systems	2
	_	_		CS	611	Cow/Calf Health Systems	2
						-	
				Total ho	ours req	uired for graduation (126 cre	edit hours)

RATIONALE: With the addition of classes for the entrepreneurship minor there are sufficient courses in with the ENTRP pre-fix that may be of interest to our students. Our students have a restricted electives block that requires them to pick from courses in ACCTG, FINAN, MANGT, MKTG, AGEC, and ECON this would give them more options within that block.

With the proposed addition of ASI 561, Undergraduate Research in Animal Science, we would also like to propose that the course be used in the "Select 18 hours" block of animal and food science related courses. This would be consistent the university's 2025 plan to encourage undergraduate research.

CS 610, Feedlot Health Systems and CS 611, Cow/Calf Health Systems were developed as part of our Feedlot Management Certificate and Ranch Management Certificate programs in Animal Sciences & Industry. The courses are primarily taken by ASI majors and the content of these courses are in line with our other ASI courses.

ASI 677 would be part of the non-ruminant module series that currently exists and would be a logical fit for the "Select 9 hours" in Animal Science block.

IMPACT: In the ENTRP prefix course, we estimate there will be at most 10-20 students a year across all of our 6 options in ASI that would enroll. The College of Business Administration has been contacted.

The addition of ASI 561 to our curriculum should have no impact on other departments.

Adding CS 610 and 611 to our "Select 9 hours" in ASI should have no impact on the Clinical Sciences Department as our students are already filling the classes to capacity. The Department of Clinical Sciences has been contacted.

B.S. in Agriculture: Animal Sciences & Industry: Science/Pre-Vet Option

GENERAL COURSESGENERAL COURSESABIAnimal Science Orientation ∞ 1AGENAG200College Carcers0GENAG200College Carcers0CHM210Chemistry 14BIOL198Principles of Biology4BIOLBIOL198Principles of Biology4BIOL198ENGL100Expository Writing I3ENGL200200Expository Writing I3ENGL200Expository Writing I3COM105Public Speaking IA2COM100College Algebra3AGRICULTUREPublic Speaking IA2COM100College Algebra3AGRON = 203, 355, 350 to 355, 590 to 632, 712AGEC - ACEC100College Algebra3AGRON = 203, 355, 350 to 355, 590 to 525, 590 to 532, 712AGEC - ACEC100100329, 571, 572 to 661AGRON = 203, 355, 330 to 355, 430, 501, 550, 630 to 660, 681 to 790PDSCI = PDSCI = 392, 660, 690ENTOM = ENTOM 250 or 301, 300, 305, 312, 314 to 620, 662 to 767FOR = FOR 210FDSCI = FDSCI = 392, 660, 690ENTOM = ENTOM 250 or 301, 300, 305, 312, 314 to 620, 662 to 767GRSC = CRSCI 101 to 313, 301 to 375, 510, 520, 630 to 751FOR = FOR 210 to 311, 300 to 375, 510, 520, 643FOR = FOR 210 to 311, 300 to 375, 510, 520, 643GRES = ARES 210 to 400, 321, 314 to 620, 662 to 767GRSC = CRSCI 105 to 315, 500 c25, 706 to 751FOR = FOR 210 to 311, 300 to 375, 510, 520, 643GRES = ARES 210 to 400, 321, 314 to 620, 662 t	FROM:				TO:			
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FINAN – Any course
FINAN – Any course FSHS – FSHS 105
FSHS – FSHS 105 ENTRP – Any course
MANGT – Any course MANGT – Any course
MKTG – Any course MKTG – Any course
PHYSICS/MATH/STATISTICS PHYSICS/MATH/STATISTICS
(Minimum 6 hours) (Minimum 6 hours)
MATH – MATH 150, 205, 210, 211, 220, 221, 222 MATH – MATH 150, 205, 210, 211, 220, 221, 222
PHYS – PHYS 113, 114 PHYS – PHYS 113, 114
STAT – STAT 325, 340, 350 STAT – STAT 325, 340, 350
COMMUNICATIONS COMMUNICATIONS
(Minimum 3 hours) (Minimum 3 hours)
AGCOM – AGCOM 310, 400, 410 AGCOM – AGCOM 310, 400, 410
COMM – COMM 311, 321, 322, 326 COMM – COMM 311, 321, 322, 326
ENGL – ENGL 300, 516 ENGL – ENGL 300, 516
MC – MC 110, 111, 112, 120, & 180 MC – MC 110, 111, 112, 120, & 180
Modern Language – Any course in ARAB, CHINE, FREN, Modern Language – Any course in ARAB, CHINE, FREN,
GRM, ITAL, JAPAN, LATIN, PORT, RUSSN, SPAN, GRM, ITAL, JAPAN, LATIN, PORT, RUSSN, SPAN,
URDU URDU
ANIMAL SCIENCE ANIMAL SCIENCE
ASI 102 Prin Animal Science 3 ASI 102 Prin Animal Science 3
ASI 105 Animal Sciences & Ind Lab 1 ASI 105 Animal Sciences & Ind Lab 1
ASI 106 Dairy/Poultry Lab 1 ASI 106 Dairy/Poultry Lab 1
1 1
ASI 107 Comp Anml/Horse Lab 1 ASI 107 Comp Anml/Horse Lab 1
ASI 318 Fund. of Nutrition 3 ASI 318 Fund. of Nutrition 3
3 3
ASI 320 Principles of Feeding 3 ASI 320 Principles of Feeding 3
ASI 400 Farm Animal Reproduction 3 ASI 400 Farm Animal Reproduction 3
ASI 500 Genetics 3 ASI 500 Genetics 3
ASI 580 ASI Seminar 1 ASI 580 ASI Seminar 1
(Select 1 course) (Select 1 course)
ASI 350 Meat Science 3 ASI 350 Meat Science 3
ASI 405 Fund Milk Processing 3 ASI 405 Fund Milk Processing 3
ASI 361 Meat Animal Processing 2 ASI 361 Meat Animal Processing 2
ASI 601 Physiology of Lactation 3 ASI 601 Physiology of Lactation 3
ASI 640 Poultry Product Tech 3 ASI 640 Poultry Product Tech 3
ASI 695 Equine Exercise Physiology 3 ASI 695 Equine Exercise Physiology 3

FDSC	CI 305	Fund of Food Processing	3	FDSC	CI 305	Fund of Food Processing	3
3		-		3		-	
		(Select 2 courses)				(Select 2 courses)	
ASI	515	Beef Science	3	ASI	515	Beef Science	3
ASI	520	Companion/Lab Animal Mngt	3	ASI	520	Companion/Lab Animal Mngt	3
ASI	521	Horse Science	3	ASI	521	Horse Science	3
ASI	524	Sheep/Meat Goat Science	3	ASI	524	Sheep/Meat Goat Science	3
3				3			
ASI	535	Swine Science	3	ASI	535	Swine Science	3
ASI	621	Dairy Cattle Management	3	ASI	621	Dairy Cattle Management	3
ASI	645	Poultry Management	3	ASI	645	Poultry Management	3
		(Minimum 9 hours)				(Minimum 9 hours)	
ASI	315	Livestock & Meat Eval	3	ASI	315	Livestock & Meat Eval	3
ASI	401	Farm Animal Repro Lab	1	ASI	401	Farm Animal Repro Lab	1
ASI	504	Equine Repro Mngt	3	ASI	504	Equine Repro Mngt	3
ASI	510	Animal Breeding Pr.	3	ASI	510	Animal Breeding Pr.	3
ASI	512	Bovine Repro Tech	2	ASI	512	Bovine Repro Tech	2
ASI	533	Anatomy & Physiology	4	ASI	533	Anatomy & Physiology	4
ASI	540	Principles of Animal Disease	3	ASI	540	Principles of Animal Disease	3
ASI	595	Contemp Issues ASI	3	ASI	561	Undergrad Research in ASI	0-3
ASI	600	Applied Animal Biotech	2	ASI	595	Contemp Issues ASI	3
ASI	602	Equine Breeding/Genetics	2	ASI	600	Applied Animal Biotech	2
ASI	608	Dairy Foods Process & Techno	13	ASI	602	Equine Breeding/Genetics	2
ASI	610	Processed Meat Ops	2	ASI	608	Dairy Foods Process & Techno	13
ASI	620	Lvstk Prod & Mngmt	2	ASI	610	Processed Meat Ops	2
ASI	650	ID Data Management	2	ASI	620	Lvstk Prod & Mngmt	2
ASI	655	Behavior of Domestic Animals	3	ASI	650	ID Data Management	2
ASI	658	Animal Growth & Developmer	nt3	ASI	655	Behavior of Domestic Animals	3
ASI	662	Special Topics Animal Science	0-6	ASI	658	Animal Growth & Developmen	nt3
ASI	675-679	Non-Ruminant Modules	1-4	ASI	662	Special Topics Animal Science	0-6
ASI	680-685	Ruminant Modules	1-6	ASI	675-679	Non-Ruminant Modules	1- <u>5</u>
ASI	710	Phys Repro Farm Anml	3	ASI	680-685	Ruminant Modules	1-6
ASI	777	Meat Technology	3	ASI	710	Phys Repro Farm Anml	3
Total	hours req	uired for graduation (126 cred	it hours)	ASI	777	Meat Technology	3
				CS	610	Feedlot Health Systems	2
				CS	611	Cow/Calf Health Systems	2
				Total	hours req	uired for graduation (126 cred	it hours)

RATIONALE: With the addition of classes for the entrepreneurship minor there are sufficient courses in with the ENTRP pre-fix that may be of interest to our students. Our students have a restricted electives block that requires them to pick from courses in ACCTG, FINAN, MANGT, MKTG, AGEC, and ECON this would give them more options within that block.

With the proposed addition of ASI 561, Undergraduate Research in Animal Science, we would also like to propose that the course be used in the "Select 18 hours" block of animal and food science related courses. This would be consistent the university's 2025 plan to encourage undergraduate research.

CS 610, Feedlot Health Systems and CS 611, Cow/Calf Health Systems were developed as part of our Feedlot Management Certificate and Ranch Management Certificate programs in Animal Sciences & Industry. The courses are primarily taken by ASI majors and the content of these courses are in line with our other ASI courses.

ASI 677 would be part of the non-ruminant module series that currently exists and would be a logical fit for the "Select 9 hours" in Animal Science block.

IMPACT: In the ENTRP prefix course, we estimate there will be at most 10-20 students a year across all of our 6 options in ASI that would enroll. The College of Business Administration has been contacted.

The addition of ASI 561 to our curriculum should have no impact on other departments.

Adding CS 610 and 611 to our "Select 9 hours" in ASI should have no impact on the Clinical Sciences Department as our students are already filling the classes to capacity. The Department of Clinical Sciences has been contacted.

EFFECTIVE DATE: Fall 2013

Food Science & Industry

B.S. in Food Science & Industry

Business & Operations Management Option

FROM:	TO:
GENERAL COURSES (10-12 credit hours)	GENERAL COURSES (10-12 credit hours)
COMM 105 - Public Speaking IA (2)	COMM 105 - Public Speaking IA (2)
or	or
COMM 106 - Public Speaking I (3)	COMM 106 - Public Speaking I (3)
ENGL 100 - Expository Writing I (3)	ENGL 100 - Expository Writing I (3)
ENGL 200 - Expository Writing II (3)	ENGL 200 - Expository Writing II (3)
Additional communications course (2–3)	Additional communications course (2–3)
SOCIAL SCIENCES & HUMANITIES (12 credit hours)	SOCIAL SCIENCES & HUMANITIES (12 credit hours)
ECON 110 - Principles of Macroeconomics (3)	ECON 110 - Principles of Macroeconomics (3)
Select 9 hours	Select 9 hours
Suggested Courses (must be taken from more than one	Suggested Courses (must be taken from more than one
department):	department):
Art – any course	Art – any course
Communication Studies, Theatre and Dance – any	Communication Studies, Theatre and Dance – any
course	course
Economics – any course between ECON 120-ECON 735	Economics – any course between ECON 120-ECON 735
English – any, except ENGL 100 Expository Writing I	English – any, except ENGL 100 Expository Writing I
and ENGL 200 Expository Writing II	and ENGL 200 Expository Writing II
Family Studies and Human Services – any course	Family Studies and Human Services – any course
Geography – any, except GEOG 221-Environmental	Geography – any, except GEOG 221-Environmental
Geography I and GEOG 321-Environmental Geography	Geography I and GEOG 321-Environmental Geography
II	II
History – any course	History – any course
Music – any course	Music – any course
Philosophy – any course	Philosophy – any course
Political Science – any course	Political Science – any course
Psychology – any course	Psychology – any course
Sociology, Anthropology, and Social Work – any course	Sociology, Anthropology, and Social Work – any course
ARCH 301 - Appreciation of Architecture (3)	ARCH 301 - Appreciation of Architecture (3)
WOMST 105 -Introduction to Women's Studies (3)	WOMST 105 -Introduction to Women's Studies (3)
BIOLOGICAL SCIENCES (8 credit hours)	BIOLOGICAL SCIENCES (8 credit hours)
BIOL 198 - Principles of Biology (4)	BIOL 198 - Principles of Biology (4)

BIOL 455 - General Microbiology (4)BIOL 455 - General Microbiology **OUANTITATIVE STUDIES (9 credit hours) OUANTITATIVE STUDIES (9 credit hours)** MATH 100 - College Algebra MATH 100 - College Algebra (3) MATH 205 - General Calculus and Linear Algebra (3) MATH 205 - General Calculus and Linear Algebra (3) STAT 350 - Business and Economic Statistics I (3) STAT 350 - Business and Economic Statistics I (3) **PHYSICAL SCIENCES (13 credit hours) PHYSICAL SCIENCES (13 credit hours) BIOCH 265 - Introductory Organic and Biochemistry BIOCH 265 - Introductory Organic and Biochemistry** (5) (5)CHM 210 - Chemistry I (4) CHM 210 - Chemistry I (4) CHM 230 - Chemistry II (4) CHM 230 - Chemistry II (4) CORE FOOD SCIENCE COURSES (22-24 credit hours) CORE FOOD SCIENCE COURSES (22-24 credit hours) Must have 2.0 GPA average. Must have 2.0 GPA average. FDSCI 302 - Introduction to Food Science (3) FDSCI 302 - Introduction to Food Science (3) FDSCI 305 - Fundamentals of Food Processing (3) FDSCI 305 - Fundamentals of Food Processing (3) FDSCI 500 - Food Science Seminar (1) FDSCI 500 - Food Science Seminar (1) FDSCI 600 – Food Microbiology (2) FDSCI 600 – Food Microbiology (2) FDSCI 601 - Food Microbiology Lab (2) FDSCI 601 – Food Microbiology Lab (2) FDSCI 690 - Principles of HACCP (2) FDSCI 690 - Principles of HACCP (2) HN 132 - Basic Nutrition (3) HN 132 - Basic Nutrition (3) Select One Select One FDSCI 695 - Quality Assurance of Food Products (3) FDSCI 695 - Quality Assurance of Food Products (3) or or FDSCI 740 - Research and Development of Food FDSCI 740 - Research and Development of Food Products (4) Products (4) Select One Select One FDSCI 501 - Food Chemistry (3) FDSCI 501 - Food Chemistry (3) or HN 413 - Science of Food (4) HN 413 - Science of Food (4) **PROFESSIONAL ELECTIVES (25 credit hours) PROFESSIONAL ELECTIVES (25 credit hours)** Must have 3 processing electives from at least 2 commodity Must have 3 processing electives from at least 2 commodity areas - Dairy, Grain, Meat, or Fruit/Vegetables. areas - Dairy, Grain, Meat, or Fruit/Vegetables. Other professional electives can be substituted as Other professional electives can be substituted as appropriate. appropriate. **Food Science Electives Food Science Electives** AGEC 120 – Ag Econ & Agribusiness (3) AGEC 120 – Ag Econ & Agribusiness (3) ECON 120- Prin Micro Economics (3) ECON 120- Prin Micro Economics (3) AGRON 335 - Environmental Quality (3) AGRON 335 - Environmental Quality (3) ASI 303 - History and Attitudes of Animal Use (3) ASI 303 - History and Attitudes of Animal Use (3) ASI 315 - Livestock and Meat Evaluation (3) ASI 315 - Livestock and Meat Evaluation (3) ASI 500 - Genetics (3) ASI 500 - Genetics (3) ASI 533 - Anatomy and Physiology (4) ASI 533 - Anatomy and Physiology (4) ASI 595 - Contemporary Issues in Animal Science and ASI 595 - Contemporary Issues in Animal Science and Agriculture (3) Agriculture (3) ASI 645 - Poultry Management (3) ASI 645 - Poultry Management (3) ASI 660 – International Experience in ASI (3) ASI 660 – International Experience in ASI (3) BIOL 350 – Public Health Biology (3) BIOL 350 – Public Health Biology (3) FDSCI 430 - Food Products Evaluation (3) FDSCI 430 - Food Products Evaluation (3) FDSCI 603 - Food Science Internship (1-6) FDSCI 530 – Undergraduate Research in Food Science FDSCI 630 - Food Science Problems (Variable) (0-3)FDSCI 710 – Kosher & Halal Food Regulations (2) FDSCI 603 - Food Science Internship (1-6) FDSCI 713 - Rapid Methods and Automation in FDSCI 630 - Food Science Problems (Variable) Microbiology (2) FDSCI 710 - Kosher & Halal Food Regulations (2) FDSCI 730 - A Multidisciplinary Overview of Food FDSCI 713 - Rapid Methods and Automation in Safety and Security (2) Microbiology (2) FDSCI 731 – Food Prot and Def:Essential Concepts (2) FDSCI 730 - A Multidisciplinary Overview of Food FDSCI 791 - Advanced Application of HACCP Safety and Security (2)

(4)

(3)

Principles (3) GENAG 210 - Human and Cultural Diversity in Food and Agricultural Sciences (3) GENAG 711 – Occupational & Ag Health (3) GENAG 721 – Occupational & Ag Safety & Health (3) GRSC 651 - Food and Feed Product Protection (4) GRSC 661 - Qualities of Food and Feed Ingredients (3) HN 301 - Food Trends, Legislation, and Regulation (3) HN 352 - Personal Wellness (3) HN 701 - Sensory Analysis (3) HMD 220 – Environmental Issues in Hospitality (3) HMD 341 - Principles of Food Production Management (3)HMD 442 – Introduction to Wines (1) HORT 780 - Health Promoting Phytochemicals:Fruits and Vegetables (2) PHYS 113 – General Physics I (4) PHYS 114 - General Physics II (4) STAT 341 - Biometrics II (3) STAT 351 - Business & Econ Stat II (3) **Communications** Any foreign language Completion of ASI 495 Advanced Meat Evaluation AGCOM 400 - Agricultural Business Communications (3) AGCOM 590 - New Media Technology (3) AGCOM 610 - Crisis Communication (3) COMM 311 - Business and Professional Speaking (3) COMM 321 - Public Speaking II (3) COMM 322 - Interpersonal Communication (3) COMM 326 - Small Group Discussion Methods (3) COMM 535 - Communication and Leadership (3) ENGL 300 - Expository Writing III (3) ENGL 516 - Written Communication for the Sciences (3) HMD 443 – Food Writing (3) MC 110 - Mass Communication in Society (3) MC 111 – Journalism in a Free Society (3) MC 112 – Web Communications in Society (3) MC 120 - Principles of Advertising (3) MC 180 - Fundamentals of Public Relations (3) SOCWK 612 – Fund Comm for Ag & Food Sci (3) **Technology Electives** ASI 290 - Microcomputer Applications in Animal Sciences and Industry (3) ATM 160 - Engineered Systems and Technology in Agriculture (3) ATM 450 - Sensors and Controls for Agricultural and Biological Systems (3) CIS 101 - Introduction to Computing Systems, Information Search, and Security (1) CIS 102 - Introduction to Spreadsheet Applications (1) CIS 103 - Introduction to Database Applications (1) CIS 104 - Introduction to Word Processing Applications (1)

FDSCI 731 – Food Prot and Def:Essential Concepts (2) FDSCI 791 - Advanced Application of HACCP Principles (3) GENAG 210 - Human and Cultural Diversity in Food and Agricultural Sciences (3) GENAG 711 – Occupational & Ag Health (3) GENAG 721 – Occupational & Ag Safety & Health (3) GRSC 651 - Food and Feed Product Protection (4) GRSC 661 - Qualities of Food and Feed Ingredients (3) HN 301 - Food Trends, Legislation, and Regulation (3) HN 352 - Personal Wellness (3) HN 701 - Sensory Analysis (3) HMD 220 – Environmental Issues in Hospitality (3) HMD 341 – Principles of Food Production Management (3)HMD 442 – Introduction to Wines (1) HORT 780 – Health Promoting Phytochemicals:Fruits and Vegetables (2) PHYS 113 – General Physics I (4) PHYS 114 - General Physics II (4) STAT 341 - Biometrics II (3) STAT 351 – Business & Econ Stat II (3) Communications Any foreign language Completion of ASI 495 Advanced Meat Evaluation AGCOM 400 - Agricultural Business Communications (3)AGCOM 590 - New Media Technology (3) AGCOM 610 - Crisis Communication (3) COMM 311 - Business and Professional Speaking (3) COMM 321 - Public Speaking II (3) COMM 322 - Interpersonal Communication (3) COMM 326 - Small Group Discussion Methods (3) COMM 535 - Communication and Leadership (3) ENGL 300 - Expository Writing III (3) ENGL 516 - Written Communication for the Sciences (3)HMD 443 – Food Writing (3) MC 110 - Mass Communication in Society (3) MC 111 – Journalism in a Free Society (3) MC 112 – Web Communications in Society (3) MC 120 - Principles of Advertising (3) MC 180 - Fundamentals of Public Relations (3) SOCWK 612 – Fund Comm for Ag & Food Sci (3) **Technology Electives** ASI 290 - Microcomputer Applications in Animal Sciences and Industry (3) ATM 160 - Engineered Systems and Technology in Agriculture (3) ATM 450 - Sensors and Controls for Agricultural and **Biological Systems (3)** CIS 101 - Introduction to Computing Systems, Information Search, and Security (1) CIS 102 - Introduction to Spreadsheet Applications (1) CIS 103 - Introduction to Database Applications (1)

CIS 105 - Introduction to Computer Programming (1) CIS 104 - Introduction to Word Processing Applications GRSC 540 - Engineering Applications to Grain/Food (1)Products (3) CIS 105 - Introduction to Computer Programming (1) GRSC 540 - Engineering Applications to Grain/Food GRSC 541 - Engineering Applications to Grain/Food Products Laboratory (1) Products (3) **Processing Electives** GRSC 541 - Engineering Applications to Grain/Food ASI 310 - Poultry and Poultry Product Evaluation (2) Products Laboratory (1) ASI 350 - Meat Science (3) **Processing Electives** ASI 361 - Meat Animal Processing (2) ASI 310 - Poultry and Poultry Product Evaluation (2) ASI 370 - Principles of Meat Evaluation (2) ASI 350 - Meat Science (3) ASI 405 - Fundamentals of Milk Processing (3) ASI 361 - Meat Animal Processing (2) ASI 495 - Advanced Meat Evaluation (2) ASI 370 - Principles of Meat Evaluation (2) ASI 608 - Dairy Foods Processing & Techonology (3) ASI 405 - Fundamentals of Milk Processing (3) ASI 610 - Processed Meat Operations (2) ASI 495 - Advanced Meat Evaluation (2) ASI 640 - Poultry Products Technology (3) ASI 608 - Dairy Foods Processing & Techonology (3) ASI 671 - Meat Selection and Utilization (2) ASI 610 - Processed Meat Operations (2) ASI 777 - Meat Technology (3) ASI 640 - Poultry Products Technology (3) FDSCI 660 - International Study Experience in Food ASI 671 - Meat Selection and Utilization (2) Science (0-6) ASI 777 - Meat Technology (3) GRSC 101 - Introduction to Grain Science and Industry FDSCI 660 - International Study Experience in Food Science (0-6) (3) GRSC 150 - Principles of Milling (3) GRSC 101 - Introduction to Grain Science and Industry GRSC 405 - Grain Analysis Techniques (2) (3)GRSC 602 - Cereal Science (3) GRSC 150 - Principles of Milling (2) GRSC 625 - Flour and Dough Testing (3) GRSC 405 - Grain Analysis Techniques (2) GRSC 635 - Baking Science I (2) GRSC 602 - Cereal Science (3) GRSC 636 - Baking Science I Laboratory (2) GRSC 625 - Flour and Dough Testing (3) GRSC 635 - Baking Science I (2) GRSC 637 - Baking Science II (3) GRSC 638 - Baking Science II Laboratory (1) GRSC 636 - Baking Science I Laboratory (2) GRSC 637 - Baking Science II (3) HORT 325 – Introduction to Organic Farming (2) **Business, Management & Economics Electives** GRSC 638 - Baking Science II Laboratory (1) Courses used to fulfill the 15 credit hours of HORT 325 – Introduction to Organic Farming (2) business/management & economics electives cannot be **Business, Management & Economics Electives** used for professional elective Courses used to fulfill the 15 credit hours of requirements. business/management & economics electives cannot be ACCTG 231 - Accounting for Business Operations (3) used for professional elective requirements. ACCTG 241 - Accounting for Investing and Financing ACCTG 231 - Accounting for Business Operations (3) (3)AGEC 202 – Small Business Operations (3) ACCTG 241 - Accounting for Investing and Financing AGEC 220 - Grain and Livestock Marketing 3 (3)AGEC 308 - Farm and Ranch Management (3) AGEC 202 – Small Business Operations (3) AGEC 315 - Contemporary Issues in Global Food and AGEC 220 - Grain and Livestock Marketing 3 AGEC 308 - Farm and Ranch Management (3) Agriculture (3) AGEC 315 - Contemporary Issues in Global Food and AGEC 318 - Food and Agribusiness Management (3) AGEC 410 - Agricultural Policy (3) Agriculture (3) AGEC 420 - Commodity Futures (3) AGEC 318 - Food and Agribusiness Management (3) AGEC 500 – Production Economics (3) AGEC 410 - Agricultural Policy (3) AGEC 505 - Agricultural Market Structures (3) AGEC 420 - Commodity Futures (3) AGEC 500 – Production Economics (3) AGEC 513 – Agriculture Finance (3) AGEC 515 - Food and Agribusiness Marketing (3) AGEC 505 - Agricultural Market Structures (3) AGEC 516 - Agricultural Law and Economics (3) AGEC 513 – Agriculture Finance (3) AGEC 520 - Market Fundamentals and Futures/Options AGEC 515 - Food and Agribusiness Marketing (3) AGEC 516 - Agricultural Law and Economics (3) Trading (3) AGEC 570 - Food Manufacturing, Distribution and AGEC 520 - Market Fundamentals and Futures/Options Retailing (3) Trading (3) AGEC 599 - Food and Agribusiness Management AGEC 570 - Food Manufacturing, Distribution and

Strategies (3)	Retailing (3)
AGEC 605 - Price Analysis and Forecasting (3)	AGEC 599 - Food and Agribusiness Management
AGEC 623 - International Agricultural Trade (3)	Strategies (3)
AGEC 632 - Agribusiness Logistics (3)	AGEC 605 - Price Analysis and Forecasting (3)
AGEC 680 - Risk Management (3)	AGEC 623 - International Agricultural Trade (3)
ECON 510 – Intermediate Macro Economics (3)	AGEC 632 - Agribusiness Logistics (3)
ECON 520 - Intermediate Microeconomics (3)	AGEC 680 - Risk Management (3)
FINAN 450 - Principles of Finance (3)	ECON 510 – Intermediate Macro Economics (3)
MANGT 300 - Introduction to Total Quality	ECON 520 - Intermediate Microeconomics (3)
Management (1)	FINAN 450 - Principles of Finance (3)
MANGT 366 - Information Technology for Business (3)	MANGT 300 - Introduction to Total Quality
MANGT 390 - Business Law I (3)	Management (1)
MANGT 420 - Management Concepts (3)	MANGT 366 - Information Technology for Business (3)
MANGT 421 - Introduction to Operations Management	MANGT 390 - Business Law I (3)
(3)	MANGT 420 - Management Concepts (3)
MANGT 530 - Industrial and Labor Relations (3)	MANGT 421 - Introduction to Operations Management
MANGT 531 - Human Resources Management (3)	(3)
MKTG 400 - Introduction to Marketing (3)	MANGT 530 - Industrial and Labor Relations (3)
MKTG 450 - Consumer Behavior (3)	MANGT 531 - Human Resources Management (3)
MKTG 541 - Retailing (3)	MKTG 400 - Introduction to Marketing (3)
MKTG 542 - Professional Selling and Sales	MKTG 450 - Consumer Behavior (3)
Management (3)	MKTG 541 - Retailing (3)
BUSINESS, MANAGEMENT & ECONOMICS	MKTG 542 - Professional Selling and Sales
Select 15 credits from the business courses listed above.	Management (3)
Students are strongly encouraged to complete a minor in	BUSINESS, MANAGEMENT & ECONOMICS
either Business Administration, Agricultural Economics or	Select 15 credits from the business courses listed above.
Agricultural Business.	Students are strongly encouraged to complete a minor in
UNRESTRICTED ELECTIVES (7-12 credit hours)	either Business Administration, Agricultural Economics or
Total hours required for graduation (126 credit hours)	Agricultural Business.
	UNRESTRICTED ELECTIVES (7-12 credit hours)
	Total hours required for graduation (126 credit hours)

RATIONALE: With the proposed addition of FDSCI 630, Undergraduate Research in Food Science, we would also like to propose that the course be used in the "Professional Electives" block of food science related courses. This would be consistent the university's 2025 plan to encourage undergraduate research.

IMPACT: No impact on other departments.

EFFECTIVE DATE: Fall 2013

B.S. in Food Science & Industry Science Option

FROM:	TO:
General Courses (10-12 credit hours)	General Courses (10-12 credit hours)
COMM 105 - Public Speaking IA (2)	COMM 105 - Public Speaking IA (2)
or	or
COMM 106 - Public Speaking I (3)	COMM 106 - Public Speaking I (3)
ENGL 100 - Expository Writing I (3)	ENGL 100 - Expository Writing I (3)
ENGL 200 - Expository Writing II (3)	ENGL 200 - Expository Writing II (3)
Additional communications course (2–3)	Additional communications course (2–3)
Social Sciences and Humanities (12 credit hours)	Social Sciences and Humanities (12 credit hours)

ECON 110 - Principles of Macroeconomics (3)	ECON 110 - Principles of Macroeconomics (3)
Humanities/social sciences courses	Humanities/social sciences courses
Suggested Courses (must be taken from more than one	Suggested Courses (must be taken from more than one
department):	department):
Art – any course	Art – any course
Communication Studies, Theatre and Dance – any	Communication Studies, Theatre and Dance – any
course	course
Economics – any course between ECON 120-ECON 735	Economics – any course between ECON 120-ECON 735
English – any, except ENGL 100 Expository Writing I	English – any, except ENGL 100 Expository Writing I
and ENGL 200 Expository Writing II	and ENGL 200 Expository Writing II
Family Studies and Human Services – any course	Family Studies and Human Services – any course
Geography – any, except GEOG 221-Environmental	Geography – any, except GEOG 221-Environmental
Geography L and GEOG 321-Environmental Geography	Geography I and GEOG 321-Environmental Geography
II	II
History – any course	History – any course
Music – any course	Music – any course
Philosophy – any course	Philosophy – any course
Political Science – any course	Political Science – any course
Psychology – any course	Psychology – any course
Sociology Anthropology and Social Work – any course	Sociology Anthropology and Social Work – any course
APCH 301 - Appreciation of Architecture (3)	ARCH 301 - Appreciation of Architecture (3)
WOMST 105 Introduction to Women's Studies (3)	WOMST 105 Introduction to Women's Studies (3)
Quantitative Studies (12 credit hours)	Quantitative Studies (12 andit hours)
MATH 100 College Algebra (2)	MATH 100 Collage Algebra (2)
MATH 100 - College Algebra (5) MATH 220 - Analytic Connectment Coloribus I (4)	MATH 100 - College Algebra (5)
MATH 220 - Analytic Geometry and Calculus I (4)	MATH 220 - Analytic Geometry and Calculus I (4)
Select One	Select One
SIAI 325 - Introduction to Statistics (3)	SIAI 325 - Introduction to Statistics (3)
SIAI 340 - Biometrics I (3)	SIAI 340 - Biometrics I (3)
STAT 350 - Business and Economic Statistics I (3)	STAT 350 - Business and Economic Statistics I (3)
Select One	Select One
SIAI 341 - Biometrics II (3)	SIAI 341 - Biometrics II (3)
STAT 351 - Business and Economic Statistics II (3)	STAT 351 - Business and Economic Statistics II (3)
Biological Sciences (8 credit hours)	Biological Sciences (8 credit hours)
BIOL 198 - Principles of Biology (4)	BIOL 198 - Principles of Biology (4)
BIOL 455 - General Microbiology (4)	BIOL 455 - General Microbiology (4)
Physical Sciences (23 credit hours)	Physical Sciences (23 credit hours)
BIOCH 521 - General Biochemistry (3)	BIOCH 521 - General Biochemistry (3)
and	and
BIOCH 522 - General Biochemistry Laboratory (2)	BIOCH 522 - General Biochemistry Laboratory (2)
CHM 210 - Chemistry I (4)	CHM 210 - Chemistry I (4)
CHM 230 - Chemistry II (4)	CHM 230 - Chemistry II (4)
CHM 350 - General Organic Chemistry (3)	CHM 350 - General Organic Chemistry (3)
and	and
CHM 351 - General Organic Chemistry Laboratory (2)	CHM 351 - General Organic Chemistry Laboratory (2)
PHYS 115 - Descriptive Physics (5)	PHYS 115 - Descriptive Physics (5)
Core Food Science Courses (30-31 credit hours)	Core Food Science Courses (30-31 credit hours)
Must have 2.0 GPA average.	Must have 2.0 GPA average.
FDSCI 302 - Introduction to Food Science (3)	FDSCI 302 - Introduction to Food Science (3)
FDSCI 305 - Fundamentals of Food Processing (3)	FDSCI 305 - Fundamentals of Food Processing (3)
FDSCI 500 - Food Science Seminar (1)	FDSCI 500 - Food Science Seminar (1)
FDSCI 501 - Food Chemistry (3)	FDSCI 501 - Food Chemistry (3)
FDSCI 600 - Food Microbiology (2)	FDSCI 600 - Food Microbiology (2)
FDSCI 601 – Food Microbiology Lab (2)	FDSCI 601 – Food Microbiology Lab (2)

FDSCI 690 - Principles of HACCP (2) FDSCI 690 - Principles of HACCP (2) FDSCI 727 - Chemical Methods of Food Analysis (2) FDSCI 727 - Chemical Methods of Food Analysis (2) FDSCI 728 - Physical Methods of Food Analysis (2) FDSCI 728 - Physical Methods of Food Analysis (2) GRSC 540 - Engineering Applications to Grain/Food GRSC 540 - Engineering Applications to Grain/Food Products (3) Products (3) GRSC 541 - Engineering Applications to Grain/Food GRSC 541 - Engineering Applications to Grain/Food Products Laboratory (1) Products Laboratory (1) HN 132 - Basic Nutrition (3) HN 132 - Basic Nutrition (3) Select One Select One FDSCI 695 - Quality Assurance of Food Products (3) FDSCI 695 - Quality Assurance of Food Products (3) or or FDSCI 740 - Research and Development of Food FDSCI 740 - Research and Development of Food Products (4) Products (4) **Professional Electives (20 credit hours) Professional Electives (20 credit hours)** Must have 3 processing electives from at least 2 commodity Must have 3 processing electives from at least 2 commodity areas - Dairy, Grain, Meat, or Fruit/Vegetables. areas - Dairy, Grain, Meat, or Fruit/Vegetables. Other professional electives can be substituted as Other professional electives can be substituted as appropriate. appropriate. **Food Science Electives Food Science Electives** AGRON 335 - Environmental Quality (3) AGRON 335 - Environmental Quality (3) ASI 303 - History and Attitudes of Animal Use (3) ASI 303 - History and Attitudes of Animal Use (3) ASI 315 - Livestock and Meat Evaluation (3) ASI 315 - Livestock and Meat Evaluation (3) ASI 500 - Genetics (3) ASI 500 - Genetics (3) ASI 533 - Anatomy and Physiology (4) ASI 533 - Anatomy and Physiology (4) ASI 595 - Contemporary Issues in Animal Science and ASI 595 - Contemporary Issues in Animal Science and Agriculture (3) Agriculture (3) ASI 645 - Poultry Management (3) ASI 645 - Poultry Management (3) ASI 660 - International Study Experience in Animal ASI 660 - International Study Experience in Animal Science (0-6) Science (0-6) BIOL 330 – Public Health Biology (3) BIOL 330 – Public Health Biology (3) BIOL 340 - Structure and Function of the Human Body BIOL 340 - Structure and Function of the Human Body (8) (8)BIOL 450 - Modern Genetics (4) BIOL 450 - Modern Genetics (4) BIOL 530 – Pathogenic Microbiology (3) BIOL 530 – Pathogenic Microbiology (3) BIOL 541 - Cell Biology (3) BIOL 541 - Cell Biology (3) BIOL 690 – Microbial Physiology & Metabolism (2) BIOL 690 – Microbial Physiology & Metabolism (2) CHM 550 - Organic Chemistry II (3) CHM 550 - Organic Chemistry II (3) CHM 551 - Advanced Organic Laboratory (2) CHM 551 - Advanced Organic Laboratory (2) FDSCI 430 - Food Products Evaluation (3) FDSCI 430 - Food Products Evaluation (3) FDSCI 603 - Food Science Internship (1-6) FDSCI 530 – Undergraduate Research in Food Science FDSCI 630 - Food Science Problems (Variable) (0-3)FDSCI 710 – Kosher & Halal Food Regulations (2) FDSCI 603 - Food Science Internship (1-6) FDSCI 713 - Rapid Methods and Automation in FDSCI 630 - Food Science Problems (Variable) FDSCI 710 – Kosher & Halal Food Regulations (2) Microbiology (2) FDSCI 730 - A Multidisciplinary Overview of Food FDSCI 713 - Rapid Methods and Automation in Microbiology (2) Safety and Security (2) FDSCI 731 – Food Prot and Def: Essential Concepts (3) FDSCI 730 - A Multidisciplinary Overview of Food FDSCI 791 - Advanced Application of HACCP Safety and Security (2) Principles (3) FDSCI 731 – Food Prot and Def: Essential Concepts (3) GENAG 210 - Human and Cultural Diversity in Food FDSCI 791 - Advanced Application of HACCP and Agricultural Sciences (2) Principles (3) GENAG 505 - Comparative Agriculture (1-4) GENAG 210 - Human and Cultural Diversity in Food GENAG 711 – Occupational & Ag Health (3) and Agricultural Sciences (2) GENAG 721 Occupational & Ag Safety & Health (3) GENAG 505 - Comparative Agriculture (1-4) GNHE 310 - Human Needs (3) GENAG 711 – Occupational & Ag Health (3) HMD 220 – Environmental Issues in Hospitality (3) GENAG 721 Occupational & Ag Safety & Health (3)

HMD 341 - Principles of Food Production Management (3)HMD 442 – Introduction to Wines (1) HN 352 - Personal Wellness (3) (3)HN 400 - Human Nutrition (3) HN 510 - Life Span Nutrition (3) HN 620 - Nutrient Metabolism (3) HN 701 - Sensory Analysis (3) HORT 780 - Health-Promoting Phytochemicals:Fruits and Vegetables (2) GRSC 651 - Food and Feed Product Protection (4) GRSC 661 - Qualities of Food and Feed Ingredients (3) PHYS 114 - General Physics II (4) Communications Any foreign language Completion of ASI 495 Advanced Meat Evaluation AGCOM 400 - Agricultural Business Communications (3) AGCOM 590 - New Media Technology (3) AGCOM 610 - Crisis Communication (3) (3)COMM 311 - Business and Professional Speaking (3) COMM 321 - Public Speaking II (3) COMM 322 - Interpersonal Communication (3) COMM 326 - Small Group Discussion Methods (3) COMM 535 - Communication and Leadership (3) ENGL 300 - Expository Writing III (3) ENGL 516 - Written Communication for the Sciences (3) HMD 443 – Food Writing (3) MC 110 - Mass Communication in Society (3) (3) MC 111 – Journalism in Free Society (3) MC 112 – Web Communication in Society (3) MC 120 - Principles of Advertising (3) MC 180 - Fundamentals of Public Relations (3) SOCWK 612 – Fund Comm for Ag & Food Sci (3) **Technology Electives** ASI 290 - Microcomputer Applications in Animal Sciences and Industry (3) ATM 160 - Engineered Systems and Technology in Agriculture (3) ATM 450 - Sensors and Controls for Agricultural and Biological Systems (3) CIS 101 - Introduction to Computing Systems, Information Search, and Security (1) CIS 102 - Introduction to Spreadsheet Applications (1) CIS 103 - Introduction to Database Applications (1) CIS 104 - Introduction to Word Processing Applications (1)CIS 105 - Introduction to Computer Programming (1) **Processing Electives** (1)ASI 310 - Poultry and Poultry Product Evaluation (2) ASI 350 - Meat Science (3) ASI 361 - Meat Animal Processing (2) ASI 370 - Principles of Meat Evaluation (2) ASI 405 - Fundamentals of Milk Processing (3) ASI 361 - Meat Animal Processing (2)

GNHE 310 - Human Needs (3) HMD 220 – Environmental Issues in Hospitality (3) HMD 341 - Principles of Food Production Management HMD 442 – Introduction to Wines (1) HN 352 - Personal Wellness (3) HN 400 - Human Nutrition (3) HN 510 - Life Span Nutrition (3) HN 620 - Nutrient Metabolism (3) HN 701 - Sensory Analysis (3) HORT 780 - Health-Promoting Phytochemicals:Fruits and Vegetables (2) GRSC 651 - Food and Feed Product Protection (4) GRSC 661 - Qualities of Food and Feed Ingredients (3) PHYS 114 - General Physics II (4) **Communications** Any foreign language Completion of ASI 495 Advanced Meat Evaluation AGCOM 400 - Agricultural Business Communications AGCOM 590 - New Media Technology (3) AGCOM 610 - Crisis Communication (3) COMM 311 - Business and Professional Speaking (3) COMM 321 - Public Speaking II (3) COMM 322 - Interpersonal Communication (3) COMM 326 - Small Group Discussion Methods (3) COMM 535 - Communication and Leadership (3) ENGL 300 - Expository Writing III (3) ENGL 516 - Written Communication for the Sciences HMD 443 – Food Writing (3) MC 110 - Mass Communication in Society (3) MC 111 – Journalism in Free Society (3) MC 112 – Web Communication in Society (3) MC 120 - Principles of Advertising (3) MC 180 - Fundamentals of Public Relations (3) SOCWK 612 – Fund Comm for Ag & Food Sci (3) **Technology Electives** ASI 290 - Microcomputer Applications in Animal Sciences and Industry (3) ATM 160 - Engineered Systems and Technology in Agriculture (3) ATM 450 - Sensors and Controls for Agricultural and Biological Systems (3) CIS 101 - Introduction to Computing Systems, Information Search, and Security (1) CIS 102 - Introduction to Spreadsheet Applications (1) CIS 103 - Introduction to Database Applications (1) CIS 104 - Introduction to Word Processing Applications CIS 105 - Introduction to Computer Programming (1) **Processing Electives** ASI 310 - Poultry and Poultry Product Evaluation (2) ASI 350 - Meat Science (3)

ASI 495 - Advanced Meat Evaluation (2) ASI 370 - Principles of Meat Evaluation (2) ASI 608 - Dairy Foods Processing & Technology (3) ASI 405 - Fundamentals of Milk Processing (3) ASI 610 - Processed Meat Operations (2) ASI 495 - Advanced Meat Evaluation (2) ASI 640 - Poultry Products Technology (3) ASI 608 - Dairy Foods Processing & Technology (3) ASI 671 - Meat Selection and Utilization (2) ASI 610 - Processed Meat Operations (2) ASI 777 - Meat Technology (3) ASI 640 - Poultry Products Technology (3) FDSCI 660 - International Study Experience in Food ASI 671 - Meat Selection and Utilization (2) Science (0-6) ASI 777 - Meat Technology (3) FDSCI 660 - International Study Experience in Food GRSC 101 - Introduction to Grain Science and Industry Science (0-6) (3) GRSC 150 - Principles of Milling (3) GRSC 101 - Introduction to Grain Science and Industry GRSC 405 - Grain Analysis Techniques (2) (3)GRSC 602 - Cereal Science (3) GRSC 150 - Principles of Milling (2) GRSC 625 - Flour and Dough Testing (3) GRSC 405 - Grain Analysis Techniques (2) GRSC 635 - Baking Science I (2) GRSC 602 - Cereal Science (3) GRSC 636 - Baking Science I Laboratory (2) GRSC 625 - Flour and Dough Testing (3) GRSC 637 - Baking Science II (3) GRSC 635 - Baking Science I (2) GRSC 638 - Baking Science II Laboratory (1) GRSC 636 - Baking Science I Laboratory (2) HORT 325 – Introduction to Organic Farming (3) GRSC 637 - Baking Science II (3) **Business, Management & Economics Electives** GRSC 638 - Baking Science II Laboratory (1) ACCTG 231 - Accounting for Business Operations (3) HORT 325 – Introduction to Organic Farming (3) ACCTG 241 - Accounting for Investing and Financing **Business, Management & Economics Electives** ACCTG 231 - Accounting for Business Operations (3) (3) AGEC 120 - Agricultural Economics and Agribusiness ACCTG 241 - Accounting for Investing and Financing (3) (3)AGEC 202 – Small Business Ops (3) AGEC 120 - Agricultural Economics and Agribusiness AGEC 220 - Grain and Livestock Marketing 3 (3)AGEC 308 - Farm and Ranch Management (3) AGEC 202 – Small Business Ops (3) AGEC 315 - Contemporary Issues in Global Food and AGEC 220 - Grain and Livestock Marketing 3 Agriculture (3) AGEC 308 - Farm and Ranch Management (3) AGEC 315 - Contemporary Issues in Global Food and AGEC 318 - Food and Agribusiness Management (3) AGEC 410 - Agricultural Policy (3) Agriculture (3) AGEC 415 - The Global Agricultural Economy, Hunger, AGEC 318 - Food and Agribusiness Management (3) AGEC 410 - Agricultural Policy (3) and Poverty (3) AGEC 420 - Commodity Futures (3) AGEC 415 - The Global Agricultural Economy, Hunger, AGEC 500 – Production Econ (3) and Poverty (3) AGEC 505 - Agricultural Market Structures (3) AGEC 420 - Commodity Futures (3) AGEC 513 – Agriculture Finance (3) AGEC 500 – Production Econ (3) AGEC 515 - Food and Agribusiness Marketing (3) AGEC 505 - Agricultural Market Structures (3) AGEC 516 - Agricultural Law and Economics (3) AGEC 513 – Agriculture Finance (3) AGEC 520 - Market Fundamentals and Futures/Options AGEC 515 - Food and Agribusiness Marketing (3) Trading (3) AGEC 516 - Agricultural Law and Economics (3) AGEC 520 - Market Fundamentals and Futures/Options AGEC 570 - Food Manufacturing, Distribution and Retailing (3) Trading (3) AGEC 599 - Food and Agribusiness Management AGEC 570 - Food Manufacturing, Distribution and Retailing (3) Strategies (3) AGEC 605 - Price Analysis and Forecasting (3) AGEC 599 - Food and Agribusiness Management AGEC 623 - International Agricultural Trade (3) Strategies (3) AGEC 632 - Agribusiness Logistics (3) AGEC 605 - Price Analysis and Forecasting (3) AGEC 680 - Risk Management (3) AGEC 623 - International Agricultural Trade (3) ECON 120 - Principles of Microeconomics (3) AGEC 632 - Agribusiness Logistics (3) ECON 510 - Intermediate Macroeconomics (3) AGEC 680 - Risk Management (3) ECON 520 - Intermediate Microeconomics (3) ECON 120 - Principles of Microeconomics (3) FINAN 450 - Principles of Finance (3) ECON 510 - Intermediate Macroeconomics (3) MANGT 300 - Introduction to Total Quality ECON 520 - Intermediate Microeconomics (3) FINAN 450 - Principles of Finance (3) Management (1)

MANGT 366 - Information Technology for Business (3)	MANGT 300 - Introduction to Total Quality
MANGT 390 - Business Law I (3)	Management (1)
MANGT 420 - Management Concepts (3)	MANGT 366 - Information Technology for Business (3)
MANGT 421 - Introduction to Operations Management	MANGT 390 - Business Law I (3)
(3)	MANGT 420 - Management Concepts (3)
MANGT 530 - Industrial and Labor Relations (3)	MANGT 421 - Introduction to Operations Management
MANGT 531 - Human Resources Management (3)	(3)
MKTG 400 - Introduction to Marketing (3)	MANGT 530 - Industrial and Labor Relations (3)
MKTG 450 - Consumer Behavior (3)	MANGT 531 - Human Resources Management (3)
MKTG 541 - Retailing (3)	MKTG 400 - Introduction to Marketing (3)
MKTG 542 - Professional Selling and Sales	MKTG 450 - Consumer Behavior (3)
Management (3)	MKTG 541 - Retailing (3)
Unrestricted Electives (7-10 credit hours)	MKTG 542 - Professional Selling and Sales
Total hours required for graduation (126 credit hours)	Management (3)
	Unrestricted Electives (7-10 credit hours)
	Total hours required for graduation (126 credit hours)

RATIONALE: With the proposed addition of FDSCI 630, Undergraduate Research in Food Science, we would also like to propose that the course be used in the "Professional Electives" block of food science related courses. This would be consistent the university's 2025 plan to encourage undergraduate research.

IMPACT: No impact on other departments.

<u>College of Human Ecology (3-17-13)</u>

Non-Expedited UNDERGRADUATE Curriculum Change Proposals

Department of Human Nutrition

Change From:	Change To:		
Human Nutrition (B.S.) - Nutritional Sciences	Human Nutrition (B.S.) - Nutritional Sciences		
General requirements (35-38 credit hours) Grades of C or higher required Communications (11-12 credit hours) • ENGL 100 - Expository Writing I Credits: (3) • ENGL 200 - Expository Writing II Credits: (3) • ENGL 516 - Written Communication for the Sciences Credits: (3)	General requirements (34-38 credit hours) Grades of C or higher required Communications (11-12 credit hours) • ENGL 100 - Expository Writing I Credits: (3) • ENGL 200 - Expository Writing II Credits: (3) • ENGL 516 - Written Communication for the Sciences Credits: (3)		
One of the following courses	One of the following courses		
 <u>COMM 105 - Public Speaking IA</u> Credits: (2) or <u>COMM 106 - Public Speaking I</u> Credits: (3) 	 <u>COMM 105 - Public Speaking IA</u> Credits: (2) or <u>COMM 106 - Public Speaking I</u> Credits: (3) 		
Social Science (9 credit hours)	Social Science (9 credit hours)		
 <u>ECON 110 - Principles of Macroeconomics</u> Credits: (3) <u>PSYCH 110 - General Psychology</u> Credits: (3) <u>SOCIO 211 - Introduction to Sociology</u> Credits: (3) Humanities electives (6 credit hours) Only a course of 3 credits or more will apply. 	 <u>ECON 110 - Principles of Macroeconomics</u> Credits: (3) <u>PSYCH 110 - General Psychology</u> Credits: (3) <u>SOCIO 211 - Introduction to Sociology</u> Credits: (3) Humanities electives (6 credit hours) Only a course of 3 credits or more will apply. 		
Natural and Physical Sciences (See Professional Studies)	Natural and Physical Sciences (See Professional Studies)		
Quantitative Studies (<mark>7</mark> credit hours)	Quantitative Studies (<mark>6-7</mark> credit hours)		
	One of the following courses		
MATH 220 - Analytic Geometry and Calculus I Credits: (4)	 <u>MATH 150 – Plane Trigonometry Credits: (3)</u> or <u>MATH 220 - Analytic Geometry and Calculus I</u> Credits: (4) 		
STAT 325 - Introduction to Statistics Credits: (3)	STAT 325 - Introduction to Statistics Credits: (3)		
 STAT 340 - Biometrics I Credits: (3) 	 STAT 320 - Biometrics I Credits: (3) 		

Integrative Human Ecology Courses (2-4 hours) GNHE 210 – Foundations of Human Ecology Credits: (1) College of Human Ecology Electives Credits: (1-3) Professional studies (75 credit hours) (Grade of C or higher required.) Biological Sciences (20 credit hours)
 <u>BIOL 198 - Principles of Biology</u> Credits: (4) <u>BIOL 340 - Structure and Function of the Human</u> <u>Body</u> Credits: (8) <u>BIOL 450 - Modern Genetics</u> Credits: (4) <u>BIOL 455 - General Microbiology</u> Credits: (4) Physical Sciences (27 credit hours)
 BIOCH 521 – General Biochemistry Credits: (3) CHM 210 – Chemistry 1 Credits: (4) CHM 230 – Chemistry II Credits: (4) CHM 531 – Organic Chemistry I Credits: (3) CHM 532 – Organic Chemistry LAB Credits: (2) CHM 550 – Organic Chemistry II Credits: (3) PHYS 113 - General Physics I Credits: (4) PHYS 114 - General Physics II Credits: (4) PHYS 114 - General Physics II Credits: (3) HN 132 - Basic Nutrition Credits: (3) HN 400 - Human Nutrition Credits: (3) HN 413 - Science of Food Credits: (4) HN 450 - Nutritional Assessment Credits: (2) HN 510 - Life Span Nutrition Credits: (3) HN 535 - Energy Balance Credits: (2) HN 600 - Public Health Nutrition Credits: (3) HN 620 - Nutrient Metabolism Credits: (3) HN 631 - Clinical Nutrition I Credits: (3)
Unrestricted electives (<u>7-11</u> credit hours)

Rationale: Nutritional Sciences is a curriculum that incorporates science and math courses required for medical, dental and other medical-related fields. MATH 220 is not required for most postgraduate paths and medical schools.

Thus, MATH 150 has been added as an alternative to MATH 220 so that students will still meet the prerequisite requirements for PHYS 113 with either course.

Impact : This change would impact the Mathematics department since there may be more students taking MATH 150 instead of MATH 220. Dr. Louis Pigno, professor and head of the Math Department, recommends approval of the proposal.

Effective: Fall 2013

<u>College of Education (3-26-13)</u>

Non-Expedited Undergraduate Curriculum Changes Department of Curriculum and Instruction

1) FROM:	TO:
Teacher Education	Teacher Education
The College of Education is the designated unit responsible for all K-State educator licensure.	The College of Education is the designated unit responsible for all K-State educator licensure.
The programs are designed to develop competencies essential for teaching and to meet Kansas State Department of Education standards. Some programs are parts of degree requirements in colleges other than the College of Education. All College of Education program requirements are subject to revision as necessary to meet Kansas licensure standards. Students should contact their advisors or the licensing officer if they have questions about licensure program changes. Licensure through the teacher education program is available for four teaching levels: (a) early childhood birth through kindergarten, (b) elementary education prepares for grades K–6, (c) secondary programs satisfy state licensure requirements for grades 6–12, and (d) PK-12 in art, music, and modern languages.	The programs are designed to develop competencies essential for teaching and to meet Kansas State Department of Education standards. Some programs are parts of degree requirements in colleges other than the College of Education. All College of Education program requirements are subject to revision as necessary to meet Kansas licensure standards. Students should contact their advisors or the licensing officer if they have questions about licensure program changes. Licensure through the teacher education program is available for four teaching levels: (a) early childhood <u>unified</u> birth through kindergarten, (b) elementary education prepares for grades K–6, (c) secondary programs satisfy state licensure requirements for grades 6–12, and (d) PK-12 in art, music, and modern languages.
Admission requirements	Admission Requirements <u>for Teacher</u>
education program may be filed when the applicant has satisfied all of the <u>admission</u> <u>requirements</u> . 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. Orientation	Education The application for admission to a teacher education program may be filed when the applicant has satisfied all of the admission requirements. 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.
Successful completion of DED 075 Orientation to Teacher Education at K-State.	Orientation Successful completion of DED 075 Orientation to Teacher Education at K-State
Hours Fifty total hours for secondary, 42 hours for elementary must be completed, including all transfer and K-State credits. English composition Both Expository Writing I and II must be completed satisfactorily with a grade no lower than C (2.0) .	 Hours Fifty total hours for secondary, 42 hours for elementary must be completed, including all transfer and K-State credits. English composition Both Expository Writing I and II must be completed satisfactorily with a grade no lower than C. Public speaking
A grade of C or better is required in COMM 105, 106. or 109. Courses in interpersonal	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 GPA

A 2.5 GPA is required in all college work attempted, including transfer and K-State credits.

Teaching specialty GPA

A 2.5 GPA is required in all college work attempted in the teaching specialty. (This includes work at K-State and other institutions.) Note: Elementary education majors do not have a teaching specialty.

Pre-professional skills tests

Pre-Professional Skills Test (PPST) will be given throughout the year on dates specified by the testing service and will include sections on reading, writing, and mathematics. Scores of 172 in writing, 173 in reading, and 172 in mathematics are required for admission to teacher education. Students also may take the web-based version offered in several sites throughout the state. A transfer student may be admitted provisionally before the test is taken, but the student must take the test with passing scores the next time it is given on campus or he or she will be dropped from teacher education.

Early field experience

Early field experience is completed in EDEL/EDSEC 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

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.

Professional semester

The professional semester involves a full semester of student teaching. This semester occurs in the fall or spring of the senior year. 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 <u>Degree Program</u> 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 <u>Field</u> GPA

A 2.75 GPA is required in all college work attempted in the <u>required</u> teaching field courses. (This includes work at K-State and other institutions.) <u>Probationary admission may be</u> 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 <u>field</u>.

Pre-professional skills tests

Pre-Professional Skills Test (PPST) will be given throughout the year on dates specified by the testing service and will include sections on reading, writing, and mathematics. Scores of 172 in writing, 173 in reading, and 172 in mathematics are required for admission to teacher education. <u>Students with an ACT composite score of 26 or</u> <u>above are not required to take the PPST.</u>

• Early field experience

Early field experience is completed in EDEL/EDSEC 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

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.

The professional semester

The professional semester involves a full semester of student teaching. This semester occurs in the fall or spring of the senior year. There is no student There is no student teaching offered during summer sessions. Because of the school districts' schedules, students may be required to begin their student teaching before the start of K-State's semester schedule and/or end their student teaching after K-State's semester schedule ends. Students desiring to be recommended for licensure by K-State must earn credit for student teaching in residence. Students may only take the courses prescribed for the professional semester unless permission is obtained through the Office of Student and Professional Services in 13 Bluemont Hall. Teaching participation is graded Credit/No Credit.

Application for student teaching

The application for student teaching must be submitted online at the College of Education web page no later than December 20 of the year preceding student teaching. Students must submit the application by this deadline even though all admission requirements to the professional semester are not fully satisfied. Junior and senior transfer students from other educational institutions should file the application immediately upon enrollment.

Admission to the professional semester

Students will be approved for the professional semester when the requirements listed below have been met. If notified that all requirements for the professional semester have not been satisfied, students may request through the College of Education advisor that the application be postponed.

Requirements for all applicants to the professional semester

- Full admittance to a teacher education program.
- Completion of 90 semester hours.
- An overall grade point average of 2.5 in all college or university course work attempted.
- Verification of a negative tuberculosis (TB) test.
- Completion of the Professional Hour requirement. By November 1 or April 1 of the semester prior to student teaching, documentation must be submitted concerning the completion of 20 hours of professional growth/service to the profession and 20 hours of educational service to youth and families. Guidelines can be found at the website for Professional Hour Requirements.

Additional requirements for elementary majors

Completion of FSHS 110, EDEL 310, and

teaching offered during summer sessions. Because of the school districts' schedules, students may be required to begin their student teaching before the start of K-State's semester schedule and/or end their student teaching after K-State's semester schedule ends.

Students desiring to be recommended for licensure by K-State must earn credit for student teaching in residence. Students may only take the courses prescribed for the professional semester unless permission is obtained through the Office of Student and Professional Services in 13 Bluemont Hall. Teaching participation is graded Credit/No Credit.

Admission to the professional semester

Students will be approved for the professional semester when the requirements listed below have been met.

Requirements for all applicants to the professional semester

- Full admittance to a teacher education program.
- Completion of 90 semester hours.
- An overall grade point average of 2.75 in all college or university course that meet degree program requirements.
- Completion of all Professional and Teacher Education courses and practica with a 3.0 GPA with no grade lower than C. Students may retake blocked methods courses one time only.
- <u>Demonstrate the standards and</u> <u>dispositions defined in our Conceptual</u> <u>Framework.</u>
- <u>Teaching as a Career, Core Teaching</u> <u>Skills, and Methods courses must be taken</u> <u>at KSU.</u>
- Verification of a negative tuberculosis (TB) test.
- Completion of the Professional Hour

Blocks A and B and C.	requirement. By November 1 or April 1 of
 Students must have a B average (3.0 	the semester prior to student teaching,
GPA) in all Block A and B and C courses	documentation must be submitted
with no grade lower than a C in any	concerning the completion of 20 hours of
blocked course. Students may retake	professional growth/service to the
blocked methods courses one time only.	profession and 20 hours of educational
Since the five elementary education methods	service to youth and families. Guidelines
courses of science, literacy (Grades K-2), literacy	can be found at the website for
(Grades 3-6), social studies, and mathematics are	Professional Hour Requirements.
offered only in Blocks B and C with field	
experiences attached, none may be transferred	
from another institution. EDEL 200 Teaching as a	
Career must be taken at K-State.	
Additional requirements for secondary majors	Additional requirements for secondary maiors
A grade point average of 2.5 is required in all	A grade point average of 2.75 is required in all
teaching fields based on all teaching field courses	teaching fields based on all teaching field courses
attempted at K-State and at all colleges or	attempted at K-State and at all colleges or
universities attended. A student may not have a	universities attended.
grade lower than a C in any teacher education	
course. Completion of FSHS 110, Blocks I and II,	
EDSEC 310 or equivalent, EDSEC 405, and DED	
318 are required.	
Student teaching assignment request	Student teaching assignment request
Student teaching requires a special application	Student teaching requires a special application
called the Student Teaching Assignment Request	called the Student Teaching Assignment Request
(STAR form). Instructions for completing the	(STAB form) Instructions for completing the
application can be obtained online at the College	application can be obtained online at the College of
of Education web page.	Education web nage
The deadlines for submitting the STAR form are:	The deadlines for submitting the STAB form are
• September 1 for those student teaching in	September 1 for those student teaching in
the spring	the spring
 February 1 for those student teaching in 	 February 1 for those student teaching in
the fall	the fall
Verification of Red Cross first aid training and	Verification of Red Cross first aid training (or an
CPR certification (or an approved equivalent) must	approved equivalent) and CPB certification (or an
be submitted prior to completion of the STAR	approved equivalent) must be submitted prior to
form.	completion of the STAB form

IMPACT: General Human Ecology, Early Childhood, Agriculture Education, and Music Education have been contacted and offer their support.

RATIONALE: Updating catalog copy to reflect current practices. Increasing GPA requirements for admission to and completion of the Professional Program.

2) FROM:	TO:
Secondary Education (B.S. in Education) All students wishing to teach in secondary schools must fully complete the approved teacher education program regardless of which college awards the degree. The approved program consists of: general education studies, professional education studies, and teaching field studies as specifically outlined in the following sections. Bachelor's degree requirements General education requirements	Secondary Education (B.S. in Education) <u>Minimum of 126 credit hours required</u> <u>Licensure 6-12</u> Bachelor's degree requirements General Education <u>Requirements (33 credit</u> <u>hours minimum)</u>
 Communications (8–9 credit hours) (A grade of C or better is required) COMM 105 - Public Speaking IA Credits: (2) or COMM 106 - Public Speaking I Credits: (3) or COMM 109 - Public Speaking 1A, Honors Credits: (3) ENGL 100 - Expository Writing I Credits: (3) ENGL 200 - Expository Writing II Credits: (3) Humanities (6 credit hours) 	 Communications (8–9 credit hours) (A grade of C or better is required) COMM 105 - Public Speaking IA Credits: (2) or COMM 106 - Public Speaking I Credits: (3) or COMM 109 - Public Speaking 1A, Honors Credits: (3) ENGL 100 - Expository Writing I Credits: (3) ENGL 200 - Expository Writing II Credits: (3) Humanities (6 credit hours)
 Literature Any department of English literature (except ENGL 230, 231, 233, 234, 355, or 545) or Department of Modern Languages literature course Credits: (3) Fine arts appreciation Any nonperformance appreciation class in the Departments of Art, Music, Communication studies (theater or dance courses), or university general education approved courses from the College of Architecture, Planning and Design Credits: (3) 	 Literature Any department of English literature or Department of Modern Languages literature course Credits: (3) Fine arts appreciation Any nonperformance class in the Departments of Art, <u>Architecture, Modern</u> Languages or the School of Music, Theatre, and Dance Credits: (3)
Social science (6 credit hours) History Any course from the Department of History Credits: (3) International overlay Recommended: ANTH 204 - A General Education Introduction to Cultural Anthropology Credits: (3) Note Additional courses are available in ANTH, ECON, GEOG, HIST, POLSC, and SOCIO. See your advisor for approved courses.	Social science (6 credit hours) Elective from Dept. of AMETH, ANTH, ECON, GEOG, HIST, POLSC, PSYCH, SOCIO, WOMST CREDITS: (3) Global Issues and Perspective course (tagged as meeting the K-State 8 requirements) from Dept. of AMETH, ANTH, ECON, GEOG, HIST, POLSC, PSYCH, SOCIO, WOMST CREDITS: (3)

Natural science (7 credit hours)

• One lab required.

Quantitative sciences (6 credit hours)

(College Algebra is a prerequisite for statistics and computer science.)

- MATH 100 College Algebra **Credits:** (3) (or higher level math course) (Grade of C or better)
- STAT 325 Introduction to Statistics **Credits**: (3)

General education electives (6 credit hours)

Total (39–40 credit hours) Teacher Education Courses (40 credit hours)

Pre-Professional-Education

Required for admission to teacher education and prerequisite for Block I.

- DED 075 Orientation to Teacher Education at KSU Credits: (0)
- EDSEC 200 Teaching as a Career Credits: (1)
- EDSEC 230 Early Field Experience Credits: (1)
- EDSEC 310 Foundations of Education Credits: (3)
- FSHS 110 Introduction to Human Development **Credits:** (3)

Professional Education

Admission to teacher education required **Non-blocked courses**

- DED 318 Educational Technology for Teaching and Learning **Credits:** (1)
- (Must be completed before Block II)
- EDSEC 405 Middle-Level Education Credits: (2)
- (Not required for K-12 majors in art, modern languages, or music.) (Must be completed before student teaching.)

Credits: (3) (Grade of C or (or higher level math course) (Grade of C or

Natural science (7 credit hours)
One lab required.

Quantitative sciences (6 credit hours)

- STAT 325 Introduction to Statistics Credits:
- STAT 325 Introduction to Statistics **Credits**: (3)

TEACHER EDUCATION COURSES (40 credit hours)

A grade of C or higher is required in all Teacher Education courses and practica. A 3.0 or higher grade point average in Teacher Education courses and practica is needed before the Professional Semester.

Pre-Professional Component (8 credit hours)

- DED 075 Orientation to Teacher Education at KSU Credits: (0)
- EDSEC 200 Teaching as a Career **Credits**: (1)
- EDSEC 230 Early Field Experience Credits: (1)
- EDSEC 310 Foundations of Education Credits: (3)
- FSHS 110 Introduction to Human Development **Credits:** (3)

Professional Component (32 credit hours)

Admission to teacher education required **Non-blocked courses (**Must be completed before student teaching)

- DED 318 Educational Technology for Teaching and Learning Credits: (1) (Must be completed before Block II)
- EDSEC 405 Middle-Level Education Credits:
 (2) (Not required for K-12 majors in art, modern languages, or music.)

Students receiving a grade of less than C in a Block 1 course will not be permitted to proceed to Block 2 until a grade of C or higher is recorded (i.e., must retake the Block 1 course first).

 Block I

 Courses must be taken concurrently and are a prerequisite for Block II.

 Block I (8 credit hours)

 Courses must be taken concurrently and prior to

 EDCEP 315 - Educational Psychology Credits: (3) EDSEC 376 - Core Teaching Skills: Secondary/Middle Credits: (3) EDSP 323 - Exceptional Students in the Secondary School Credits: (2) Block II Courses must be taken concurrently and are a preservisite for Student Teaching 	 Block II. EDCEP 315 - Educational Psychology Credits: (3) EDSEC 376 - Core Teaching Skills: Secondary/Middle Credits: (3) EDSP 323 - Exceptional Students in the Secondary School Credits: (2) Block II (9 credit hours)
 EDCEP 525 - Interpersonal Relations in the Schools Credits: (1) EDSEC 455 - Teaching in a Multicultural Society Credits: (1) EDSEC 477 - Content Area Literacies and Diverse Learners Credits: (2) Choose one of the following that corresponds 	 Student Teaching. EDCEP 525 - Interpersonal Relations in the Schools Credits: (1) EDSEC 455 - Teaching in a Multicultural Society Credits: (1) EDSEC 477 - Content Area Literacies and Diverse Learners Credits: (2)
to your teaching field:	
 EDSEC 530 - Art Methods for Secondary and Middle Schools Credits: (3) EDSEC 532 - Business Methods for Secondary and Middle Schools Credits: (3) EDSEC 534 - Family and Consumer Science Methods for Secondary and Middle Schools Credits: (3) EDSEC 536 - Language Arts Methods for Secondary and Middle Schools Credits: (3) EDSEC 538 - Mathematics Methods for Secondary and Middle Schools Credits: (3) EDSEC 540 - Modern Language Methods for Secondary and Middle Schools Credits: (3) EDSEC 542 - Science Methods for Secondary and Middle Schools Credits: (3) EDSEC 542 - Science Methods for Secondary and Middle Schools Credits: (3) EDSEC 544 - Social Studies Methods for Secondary and Middle Schools Credits: (3) EDSEC 531 - Art Methods Practicum Credits: (2) EDSEC 533 - Business Methods Practicum Credits: (2) EDSEC 537 - Language Arts Methods Practicum Credits: (2) EDSEC 539 - Mathematics Methods Practicum Credits: (2) EDSEC 541 - Modern Language Methods Practicum Credits: (2) EDSEC 543 - Science Methods Practicum Credits: (2) EDSEC 545 - Social Studies Methods Practicum Credits: (2) EDSEC 544 - Social Studies Methods Practicum Credits: (2) EDSEC 545 - Social Studies Methods Practicum Credits: (2) EDSEC 545 - Social Studies Methods Practicum Credits: (2) 	 Choose one of the following that corresponds to your teaching field: EDSEC 530 - Art Methods for Secondary and Middle Schools Credits: (3) EDSEC 532 - Business Methods for Secondary and Middle Schools Credits: (3) EDSEC 534 - Family and Consumer Science Methods for Secondary and Middle Schools Credits: (3) EDSEC 536 - Language Arts Methods for Secondary and Middle Schools Credits: (3) EDSEC 536 - Language Arts Methods for Secondary and Middle Schools Credits: (3) EDSEC 536 - Language Arts Methods for Secondary and Middle Schools Credits: (3) EDSEC 538 - Mathematics Methods for Secondary and Middle Schools Credits: (3) EDSEC 540 - Modern Language Methods for Secondary and Middle Schools Credits: (3) EDSEC 542 - Science Methods for Secondary and Middle Schools Credits: (3) EDSEC 542 - Science Methods for Secondary and Middle Schools Credits: (3) EDSEC 544 - Social Studies Methods for Secondary and Middle Schools Credits: (3) EDSEC 531 - Art Methods Practicum Credits: (2) EDSEC 533 - Business Methods Practicum Credits: (2) EDSEC 537 - Language Arts Methods Practicum Credits: (2) EDSEC 539 - Mathematics Methods Practicum Credits: (2) EDSEC 541 - Modern Language Methods Practicum Credits: (2) EDSEC 543 - Science Methods Practicum Credits: (2) EDSEC 539 - Mathematics Methods Practicum Credits: (2) EDSEC 541 - Modern Language Methods Practicum Credits: (2) EDSEC 543 - Science Methods Practicum Credits: (2) EDSEC 544 - Social Studies Methods Practicum Credits: (2)
Student Teaching	Practicum Credite: (2)
Course must be taken concurrently	Practicum Credits: (2)
EDEC 596 Tarching Participation in	Professional Semester (12 credit nours)
EDSEC 500 - Leaching Participation In	A 3.0 or higher grade point average in Teacher
Secondary Schools and Protessional	Education courses and practica is needed before
Development Seminar Credits: (1-12)	 <u>the Protessional Semester.</u> EDSEC 586 - Teaching Internship in

Teaching Field Licensure Requirements	Secondary Schools Credits: (1-12)
 Journalism (33 credits) 	Teaching Field
 Modern Languages (34-36 credits) 	One of the following areas must be selected:
 English (39 credits) 	Art (47 credits)
 Mathematics (40 credits) 	Biology (68-69 credits)
Speech (42 credits)	Business (52 credits)
Art (47 credits)	Chemistry (58 credits)
 English and Journalism (48 credits) 	Earth and Space Science (64 credits)
 Business (55 credits) 	 English (39 credits)
 Chemistry (58 credits) 	 English and Journalism (48 credits)
 Earth and Space Science (64 credits) 	 Journalism (33 credits)
 Social Studies (64 credits) 	 Mathematics (40 credits)
Physics (65 credits)	 Modern Languages (39-40 credits)
Biology (68-69 credits)	Physics (65 credits)
Total hours required for graduation (126)	 Speech (42 credits)
L	 Social Studies (64 credits)
NOTE: K-State 8 General Education	Total hours required for graduation (126)
Requirements	
	Teacher Education programs are also available
IMPORTANT NOTES: Students who first enroll	from Agriculture, Family and Consumer Sciences,
in Summer 2011 or later must meet the	Early Childhood, and Music.
requirements of the <u>K-State 8</u> General	
Education Program.	
Students who began their programs of study in	
earlier terms under the University General	
Education (UGE) program may complete their	
degrees with UGE requirements or may choose	
to move to the K-State 8. Students should	
check with their academic advisors to	
determine which choice would be better. To	
switch, students must consult with their	
academic advisors.	
Students who are readmitted in Summer 2011	
and later will be designated as meeting the K-	
State 8 by the Office of Admissions. Deans'	
offices can make an exception for the	
readmitted student who has completed UGE or	
who would prefer to complete UGE	
requirements.	
For additional information about the University	
General Education program, check the	
requirements specified by the College of Education	
website. Please see the Registrar's Office website	
for a current list of approved UGE courses.	

IMPACT: The Departments of English, American Ethnic Studies, Psychology, and Women Studies were notified of the expanded options. No negative response was received.

RATIONALE: Opening options in Humanities and Social Sciences to provide more choices for students. Updating catalog copy to reflect current practices. Increasing GPA requirements for admission to and completion of the Professional Program.

College of Arts and Sciences (4-4-13)

NON-EXPEDITED COURSE PROPOSALS Courses Numbered 000-599

Art

- ADD: ART 102 Ceramics for Non-majors. (3) I, II, S. Introduction to working in clay for non-art majors. Emphasis on historical and contemporary movements and trends in the greater ceramics and art fields. Pr.: None. K-State 8: Aesthetic Interpretation; Historical Perspectives.
- RATIONALE: We have offered this class as a special topics course for several semesters with high enrollment. We would like to offer it indefinitely under its own course number.
- IMPACT: None

EFFECTIVE DATE: Fall 2013

- ADD: ART 103 Jewelry Design and Processes for Non-Majors. (3) I, II. Students without a background in art will be introduced to basic forming and construction techniques and design principles for jewelry and small-scale metal objects. Pr.: None. K-State 8: Aesthetic Interpretation.
- RATIONALE: This course has been taught as a special topics class for five semesters and has continued student interest.
- IMPACT: None
- EFFECTIVE DATE: Fall 2013
- ADD: ART 415 Undergraduate Art Studio Assistant in Faculty Research. (1-3) I, II S. Students will assist faculty with creative research. Students will gain invaluable firsthand skills and insight of professional art practices. Research activities include but are not limited to production of artwork, preparation of art making materials, exhibition and curatorial research, and professional practice. Pr.: None. K-State 8: Aesthetic Interpretation
- RATIONALE: Currently offered as a special topics course, Studio Research Assistant is consistently offered by several Art department faculty with great student interest. The Art department faculty intends to offer this course indefinitely, thus, it has become apparent that it should have its own course number.

IMPACT: None

- FROM: ART 225 Figure Drawing I. (3) I, II. Sustained drawings of the human figure using a variety of media; introduction to human anatomy used by artists. Note: Six hours lab. Pr.: ART 210. K-State 8: Aesthetic Interpretation.
- TO: <u>ART 325</u> Figure Drawing I. (3) I, II. Sustained drawings of the human figure using a variety of media; introduction to human anatomy used by artists. Note: Six hours lab. Pr.: ART 210. K-State 8: Aesthetic Interpretation.
- RATIONALE: There are three pre-requisites for ART 225. These are ART 100, ART 190 and ART 210. So, it seems reasonable that this be a 300 level class. Also, Figure II is ART 610, so it makes sense that ART 325 be a pre-requisite to ART 610 rather than jumping from a 200 to a 600-level class.
- IMPACT: None
- EFFECTIVE DATE: Fall 2013

Biology

- ADD: BIOL 501 Plant Physiology Lab. (1) I. Lab related to physiological processes of higher plants. Three hours of lab a week. Pr.: Concurrent or previous enrollment in BIOL 500.
- RATIONALE: BIOL 501 is the former lab portion of BIOL 500 Plant Physiology. The instructor (Jesse Nippert) wants to change the format of BIOL 500 for several reasons: first, enrollment in this course has increased steadily over the past 5 years, currently with 34 enrolled students this semester. With 30+ students, it is more difficult to design meaningful lab experiments that engage the students. Currently the students work in groups of ~4, and typically only 1 or 2 persons from each group is actually engaged in the lab. Second, there recently has been greater enrollment from Master's students in the College of Agriculture. More experienced graduate students don't need the lab section professionally and are much less interested in the lab than the lecture. Finally, there are some undergraduate non-Biology-majors with little laboratory experience or interest. With approval to assign separate course numbers to the lecture and the laboratory section, the instructor will be able to develop a more meaningful, hands-on plant physiology laboratory for the students. In addition, it will provide a mechanism for students only interested in the lecture to avoid taking the laboratory.
- IMPACT: None

EFFECTIVE DATE: Fall 2013

FROM:BIOL 500 – Plant Physiology. (4) I. Detailed consideration of physiological processes of higher plants. Three hours lecture and three hours lab a week. Pr.: BIOL 198 and BIOCH 265 or another course in organic chemistry.

- TO: BIOL 500 Plant Physiology. (3) I. Detailed consideration of physiological processes of higher plants. Three hours lecture a week. Pr.: BIOL 198 and BIOCH 265 or another course in organic chemistry.
- RATIONALE: The instructor (Jesse Nippert) wants to change the format of BIOL 500 for several reasons: first, enrollment in this course has increased steadily over the past 5 years, currently with 34 enrolled students this semester. With 30+ students, it is more difficult to design meaningful lab experiments that engage the students. Currently the students work in groups of ~4, and typically only 1 or 2 persons from each group is actually engaged in the lab. Second, there recently has been greater enrollment from Master's students in the College of Agriculture. More experienced graduate students don't need the lab section professionally and are much less interested in the lab than the lecture. Finally, there are some undergraduate non-Biology-majors with little laboratory experience or interest. With approval to assign separate course numbers to the lecture and the laboratory section, the instructor will be able to develop a more meaningful, hands-on plant physiology laboratory for the students. In addition, it will provide a mechanism for students only interested in the lecture to avoid taking the laboratory.
- IMPACT: None
- EFFECTIVE DATE: Fall 2013
- FROM: BIOL 513 Physiological Adaptions of Animals. (3) I. Integration of physiological mechanisms as the basis for adaptive responses of animals to different environments. Three hours lecture a week. Pr.: BIOL 201; and a course in organic chemistry or biochemistry.
- TO: BIOL 513 Physiological Adaptions of Animals. (<u>4</u>) I. Integration of physiological mechanisms as the basis for adaptive responses of animals to different environments. Three hours lecture <u>and three hours lab</u> a week. Pr.: BIOL 201; and a course in organic chemistry or biochemistry.
- RATIONALE: Currently it is required that all students who take BIOL 513 concurrently enroll in the laboratory, BIOL 514. The change to having the lecture and laboratory as one course will reduce confusion about this requirement.
- IMPACT: None.
- EFFECTIVE DATE: Fall 2013
- DROP: BIOL 514 Physiological Adaptions of Animals Laboratory. (1) I. One threehour lab a week. Pr.: Concurrent enrollment in BIOL 513.

- RATIONALE: Currently it is required that all students taking BIOL 514 Phys Adap of Animals Laboratory also take BIOL 513 Animal Phys Adap of Animals lecture concurrently. BIOL 513 and BIOL 514 are being combined as one course to reduce confusion about this requirement.
- IMPACT: None
- EFFECTIVE DATE: Fall 2013

English

- FROM: ENGL 476 American English. (3) I, II. Systematic study of the English language as it has been and is spoken in the continental United States. Topics may include Tall Talk, Americanisms, Colonial and Modern dialects, and American dictionaries. Pr.: ENGL 200 or 201. K-State 8: None
- TO: ENGL 476 American English. (3) I, II. Systemic study of the English language as it has been and is spoken in the continental United States. Topics may include Tall Talk, Americanisms, Colonial and Modern dialects, and American dictionaries. Pr.: ENGL 200 or 210. K- State 8: <u>Human Diversity within the US.</u>
- RATIONALE: The Department of English is adding K-State 8 tags to its language courses. The courses were not added earlier, because we did not have a linguist on staff. Having now hired a linguist, we can consult with her about how to tag our untagged linguistics courses.
- IMPACT: None

EFFECTIVE DATE: Fall 2013

Journalism and Mass Communication

- ADD: MC 546 Sports, Advertising and Global Culture. (3) II intersession. The relationship between advertising and the rise of specific global entertainment and sporting events. The class employs cultural theory to examine the rise in direct-to-consumer content delivery and the use of social media to boost viewer involvement. Pr.: Junior standing recommended. K-State 8: Global Issues and Perspectives; Historical Perspectives.
- RATIONALE: As more and more content moves online, the global relationship between content deliverer and advertising agencies will become more critical. To best understand and predict the paths ahead, we should look to our recent past and apply a theoretical construct specifically one dealing with culture to more clearly identify potential future impacts. This class will explore the relationship between advertising

and the rise of specific global entertainment and sporting events, such as the Super Bowl or the World Cup. Included will be examples of successful and not-so-successful partnerships. The class will also examine the rise in direct-to-consumer content delivery and the use of social media to boost viewer involvement. Longer-term estimate of trends will attempt to predict where the relationship between advertising, culture, and the entertainment/sports industry will be in 10 years.

IMPACT: We anticipate no impact on other academic units on campus.

EFFECTIVE Date: Spring 2014

Music

- ADD: MUSIC 249 Introduction to Music of the World. (3) I, II. This course will develop listing skills and an understanding of the meaning of music from around the world. Students will discover how music can be used as a form of human expression, and also reflect the culture in which it was created. Due to the non-Western focus, cultural background and perspective will be provided for each population discussed including the influence of music within and upon societies and its members highlighting issues of human diversity outside the U.S. K-State 8: Global Issues and Perspectives; Aesthetic Interpretation.
- RATIONALE: It is envisioned as a survey course that will fulfill general education credit requirements for students outside the school of Music, Theatre, and Dance. This provides non-music majors the opportunity to develop a workable knowledge of basic music vocabulary, but also exposure to musical traditions outside their own. It provides the additional benefit of cultural context for these musics, exposing students to traditions and beliefs of other societies.
- IMPACT: None

EFFECTIVE DATE: Fall 2013

Philosophy

- ADD: PHILO 501 Perspectives on Science. (3) I, II. Provides historical, philosophical, and sociological perspectives on science, its methods and products, the social processes by which its methods are deployed and its products used, and the ways in which its results become imbued with cultural meaning.
- RATIONALE: This course will serve primarily science and engineering students, who in their careers will face decisions about what projects to pursue, what methods to use, and how to apply results. These are social as well as scientific decisions which require

creativity and an understanding of both social and scientific values. The course will provide a chance to better understand both the social context that makes science as an institution possible, the larger network of social institutions which science influences, and the values that underlie both the doing of science and the reception of science and technology among different constituencies in broader society. While it is targeted towards science and engineering majors, it will be open to others upon approval.

IMPACT: College of Arts and Sciences and all other colleges on the Manhattan campus except for Vet Med and Architecture and Design. No impact for the College of Technology and Aviation. The College of Engineering, Education, Agriculture, Business Administration, Human Ecology, and Architecture and Design have all expressed support.

NON-EXPEDITED CURRICULUM PROPOSALS

Art

BFA in Art

FROM:	TO:
The bachelor of fine arts degree is a professionally oriented undergraduate degree in art. It is designed primarily for those planning to become professional artists, artist-teachers, or art therapists. Greater emphasis is placed on actual practice in the creative art disciplines.	The bachelor of fine arts degree is a professionally oriented undergraduate degree in art. It is designed primarily for those planning to become professional artists, artist-teachers, or art therapists. Greater emphasis is placed on actual practice in the creative art disciplines.
The degree is considered the appropriate preparation for the master of fine arts degree, which is recognized as the terminal degree in studio arts, and for a master's degree in art therapy, which is required for registration as an art therapist. The BFA in art is a four-year, 124-credit hours program with concentrations possible in painting, sculpture, ceramics, graphic design, printmaking, drawing, metalsmithing and jewelry, illustration, digital arts, and photography.	The degree is considered the appropriate preparation for the master of fine arts degree, which is recognized as the terminal degree in studio arts, and for a master's degree in art therapy, which is required for registration as an art therapist. The BFA in art is a four-year, 124-credit hours program with concentrations possible in painting, sculpture, ceramics, graphic design, printmaking, drawing, metalsmithing and jewelry, digital arts, and photography.
Basic requirements (46 credit hours)	Basic requirements (46 credit hours)
Social Sciences – 6 hours Humanities – 9hours Philosophy or mathematics – 3 hours 2 Sciences, one with a lab – 7-9 hours General electives – 13-14 hours	Social Sciences – 6 hours Humanities – 9hours Philosophy or mathematics – 3 hours 2 Sciences, one with a lab – 7-9 hours General electives – 13-14 hours
Art courses (78 credit hours)	Art courses (78 credit hours)
Core – 40 credit hours Major – 23 credit hours	Core – 40 credit hours <u>Area of Concentration</u> – 23 credit hours <u>Art Electives – 15 credit hours</u>
Bachelor's degree requirements	Bachelor's degree requirements
Concentration Admission Review	Area Concentrations <u>Ceramics Concentration – 23 hours</u> <u>ART 265 – Ceramics 1 (3)</u> <u>ART 565 – Ceramics II (must be taken 3 times) (9)</u> <u>ART 665 - Ceramics III (must be taken 3 times (9)</u>
Formal evaluation prior to admission to a chosen area of concentration is required upon completion of Department of Art foundation core. A display of	ART 410 – BFA Exhibition (2) ART 565 or 665 may be substituted with ART 430 upon approval of Ceramics professors.
selected completed foundation core work will occur during the semester when the last of nine foundation courses (25 credit hours) will be	Digital Arts Concentration – 23 credit hours ART 290 – Type and Design (3) ART 330 – Digital Techniques in Visual Art (3)

completed. Visual course work must meet faculty approval, and upon passing the concentration admission review students may begin BFA study in the area of concentration they have selected.

An additional review opportunity is allowed after an unsuccessful attempt to pass the concentration admission review. The second attempt must be made at the end of the semester following an unsuccessful effort to pass the concentration admission review. The second attempt may, if so requested, occur in an area different from the first unsuccessful attempt.

Students not successful in a second attempt to pass the concentration admission review will be advised to consider the BA degree in art. For complete details on the concentration admission review, students may get a copy of the requirements from the Department of Art advisor.

The major requirements are as follows: (78 credit hours)

Foundation core

- *Two-dimensional course choice Credits:
 (3)
- **Three-dimensional course choice
 Credits: (3)
- ***Two- or three-dimensional course choice
 Credits: (3) or, while proceeding with concentration admission requirements, enrollment in one second semester area of concentration course is allowed with permission of instructor.
- ART 100 2- Dimensional Design Credits:
 (3)
- ART 105 Art Careers Seminar Credits:
 (1)
- ART 190 Drawing I Credits: (3)
- ART 200 3- Dimensional Design **Credits**:

ART 575 – Web Design (3) ART 410 – BFA Exhibition (2)

<u>Choose 2 classes from the following courses for a total of 6 credits:</u> <u>ART 582 – Internships in Visual Arts and Design</u> <u>ART 567 – Digital Photo</u> <u>ART 608 – Special Topics: Digital classes</u> <u>ART 623 repeated for a 3rd time</u> <u>ART 575 repeated for a 2nd time</u> <u>ART 616 – Animation</u>

Drawing Concentration - 23 credit hours

ART 350 – Drawing III (must be taken twice) (6) ART 610 – Figure II (3) ART 600 – Advanced Drawing (3) ART 600 or 610 or both may be repeated for the remaining credits of (9) ART 410 – BFA Exhibition (2)

Graphic Design Concentration – 23 credit hours ART 290 – Type and Design (3) ART 310 – Graphic Design Studio I (3) ART 285 – Illustration (3) Or ART 295 – Photography (3) ART 400 p Computer Imaging (3) ART 575 – Web Design (3) ART 576 Advanced Type (3) ART 580 – Senior Studio (3) ART 410 BFA Exhibition (2)

Metalsmithing and Jewelry Concentration – 23 credit hours ART 270 – Metals I (3) ART 655 – Metals Techniques (must be taken 3 times) (9) ART 680 – Metals Workshop (take multiple times for a total of 9 credits) (9) ART 410 BFA Exhibition (2) ART 655 or 680 may be substituted with ART 450 upon approval of Metals professors. Painting Concentration – 23 credit hours ART 245 – Introduction to Oil (3) ART 220 – Watermedia (3) ART 561 – Intermediate Oil (3)

ART 570 Mixed Media (3) ART 650 – Advanced Painting (must be taken 3 times) (9) ART 410 – BFA Exhibition (2)

Photography Concentration – 23 credit hours ART 295 – Photo I (3)

(3)	ART 330 – Digital Techniques (3) ART 563 – Photo II (must be taken twice) (6)
• ART 210 - Drawing II Credits: (3)	ART 567 – Digital Photo (must be taken twice) (6)
 ART 225 - Figure Drawing I Credits: (3) 	ART 626 – Advanced Study in Photography (3)
Additional requirements	$\frac{ARI 410 - BFA Exhibition (2)}{2}$
	Printmaking Concentration - 23 credit hours
	ART 235 – Printmaking I (3)
Major concentration Credits: (21)	4 times) (12)
• Art electives Credits : (15)	ART 530 pr ART 635 must be taken 2 times (6)
ART 410 - BFA Exhibition or Portfolio	$\frac{ART 410 - BFA EXhibition}{2}$
Presentation Credits: (2)	Sculpture Concentration – 23 credit hours
• Art History Credits: (15)	$\frac{ART 230 - Sculpture I}{ART 645 - Sculpture II}$
ART 195 - Survey of Art History I	$\frac{A(1)}{(9)}$
Credits: (3)	<u>ART 660 – Sculpture III (must be taken 3 times)</u>
ART 196 - Survey of Art History II	(9) AFT 410 – BFA Exhibition (2)
Credits: (3)	
Art History elective Credits: (3)	ART 645 or 660 may be substituted with ART 465
20th contury ort history requirement	
Credits: (6)	Bachelor of Fine Arts degree requirements
Choose two from the following:	Concentration Admission Review
	Formal evaluation prior to admission to a chosen
ART 545 - Twentieth Century Art History I	of Department of Art foundation core. A display of
Credits: (3)	selected completed foundation core work will occur
ART 550 - Twentieth Century Art History II	during the semester when the last of nine foundation courses (25 credit hours) will be
Credits: (3)	completed. Visual course work must meet faculty
ART 602 - Twentieth Century Art History III	approval, and upon passing the concentration
Credits: (3)	the area of concentration they have selected.
ART 603 - Twentieth Century Art History IV	
Credits: (3)	An additional review opportunity is allowed after an unsuccessful attempt to pass the concentration
Notes	admission review. The second attempt must be
	made at the end of the semester following an
	admission review. The second attempt may, if so
-Two-dimensional courses: Type and Design, Oil	requested, occur in an area different from the first
Mater Media I	unsuccessful attempt.
	Students not successful in a second attempt to
**Three-dimensional courses: Ceramics I,	pass the concentration admission review will be
Metalsmith and Jewelry, Sculpture I.	complete details on the concentration admission
Studios, laboratories, and equipment for creative	review, students may get a copy of the
work are provided and adequate to the needs of	requirements from the Department of Art advisor.
the art areas. Student work may be retained at the	The meter requirements are so follower (70
discretion of the faculty for an indefinite period of	credit hours)
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time for instructional and exhibition purposes.	
***Any of the courses listed above for 2D or 3D	
course choice.	
***Any of the courses listed above for 2D or 3D course choice. Total hours required for graduation (124 credit hours)	Foundation core • ART 100 - 2- Dimensional Design Credits: (3) • ART 105 - Art Careers Seminar Credits: (1) • ART 190 - Drawing I Credits: (3) • ART 200 - 3- Dimensional Design Credits: (3) • ART 210 - Drawing II Credits: (3) • ART 210 - Drawing II Credits: (3) • Choose one course: ART 265 Ceramics I or ART 270 – Metals I or ART 230 – Sculpture I Credits: (3) Choose three (9 credits) from the following course choices: ART 230 – Sculpture I ART 235 – Printmaking I ART 270 – Metals I ART 270 – Metals I ART 235 – Printmaking I ART 270 – Metals I ART 290 – Type and Design ART 325 – Photography in Art ART 330 – Digital Processes ART 325 – Figure Drawing I Additional requirements • Area concentration Credits: (23) • Art electives Credits: (12-15) • ART 325 – Figure Drawing I Credits (3) – this must be an Art Elective if it is not taken
	ART 410 - BFA Exhibition or Portfolio

Presentation Credits: (2)
• Art History Credits: (15)
ART 195 - Survey of Art History I
Credits: (3)
ART 196 - Survey of Art History II
Credits: (3)
• Art History elective Credits: (3)
20th century art history requirement Credits: (6)
Choose two from the following:
choose the non-the following.
 ART 545 - Twentieth Century Art History I Credits: (3)
 ART 550 - Twentieth Century Art History II Credits: (3)
 ART 602 - Twentieth Century Art History III Credits: (3)
 ART 603 - Twentieth Century Art History IV Credits: (3)
Notes
Studios, laboratories, and equipment for creative
the art areas. Student work may be retained at the
discretion of the faculty for an indefinite period of
time for instructional and exhibition purposes.
Total hours required for graduation (124 credit hours)

RATIONALE: The nine concentrations listed here have been in place for a long time but never appeared in the catalog so I am listing them in the "To" column so you can now add them to the catalog.

IMPACT: None

Biology

Fisheries, Wildlife and Conservation Biology

FROM:	TO:
 Block C: Options Fisheries ecology and management option BIOL 513 - Physiological Adaptations of Animals Credits:-(3) BIOL 514 - Physiological Adaptations of Animals Laboratory Credits: (1) BIOL 542 - Ichthyology Credits: (3) BIOL 612 - Freshwater Ecology Credits: (4) BIOL 682 - Fish Ecology Credits: (3) BIOL 696 - Fisheries Management and Techniques Credits: (4) ENTOM 680 - Aquatic Entomology Credits: (3) 	 Block C: Options Fisheries ecology and management option BIOL 513 - Physiological Adaptations of Animals Credits: (4) BIOL 542 - Ichthyology Credits: (3) BIOL 612 - Freshwater Ecology Credits: (4) BIOL 682 - Fish Ecology Credits: (3) BIOL 696 - Fisheries Management and Techniques Credits: (4)
 Wildlife ecology and management option BIOL 513 - Physiological Adaptations of Animals Credits:-(3) BIOL 514 - Physiological Adaptations of Animals Laboratory Credits: (1) BIOL 543 - Ornithology Credits: (3) BIOL 544 - Mammalogy Credits: (3) BIOL 551 - Taxonomy of Flowering Plants Credits: (4) BIOL 684 - Wildlife Management and Techniques Credits: (4) 	 Wildlife ecology and management option BIOL 513 - Physiological Adaptations of Animals Credits: (4) BIOL 543 - Ornithology Credits: (3) BIOL 544 - Mammalogy Credits: (3) BIOL 551 - Taxonomy of Flowering Plants Credits: (4) BIOL 684 - Wildlife Management and Techniques Credits: (4)
 Biodiversity and conservation biology option BIOL 500 - Plant Physiology Credits: (4) BIOL 513 - Physiological Adaptations of Animals Credits: (3) BIOL 514 - Physiological Adaptations of Animals Laboratory Credits: (1) BIOL 642 - Principles of Conservation Biology Credits: (3) 	 Biodiversity and conservation biology option BIOL 500 - Plant Physiology Credits: (3) BIOL 501 - Plant Physiology Laboratory Credits: (1) Or BIOL 513 - Physiological Adaptations of Animals Credits: (4) BIOL 642 - Principles of Conservation Biology Credits: (3)
 Plus 11 hours of courses from the following list (for biodiversity and conservation option only): BIOL 542 - Ichthyology Credits: (3) BIOL 543 - Ornithology Credits: (3) BIOL 544 - Mammalogy Credits: (3) BIOL 551 - Taxonomy of Flowering Plants 	 Plus 11 hours of courses from the following list (for biodiversity and conservation option only): BIOL 542 - Ichthyology Credits: (3) BIOL 543 - Ornithology Credits: (3) BIOL 544 - Mammalogy Credits: (3) BIOL 551 - Taxonomy of Flowering Plants Credits: (4)

 Credits: (4) BIOL 604 - Biology of the Fungi Credits: (3) ENTOM 312 - General Entomology Credits: (2) and ENTOM 313 - General Entomology	 BIOL 604 - Biology of the Fungi Credits: (3) ENTOM 312 - General Entomology Credits: (2) and ENTOM 313 - General Entomology
Laboratory Credits: (1) FOR 330 - Dendrology I Credits: (2) FOR 340 - Dendrology II Credits: (2)	Laboratory Credits: (1) FOR 330 - Dendrology I Credits: (2) FOR 340 - Dendrology II Credits: (2)

RATIONALE: ENTOM 680 is no longer offered. Removing this requirement will bring the number of required Block C credits for the Fisheries Ecology and Management option of the Fisheries, Wildlife and Conservation Biology curriculum in line with the required number of credits (18 credits) in the other two Block C options. BIOL 514 is being dropped and the course material combined under BIOL 513. The combined course will be 4 credit hours instead of the current 3 to reflect the change. BIOL 500 is currently a lecture/lab course which is being split into two separate courses, lab (BIOL 501, 1 credit hour) and lecture (BIOL 500, 3 credit hours). Forms for these courses are being submitted for approval and this change of curriculum form reflects the anticipated approval of those changes.

IMPACT: None

EFFECTIVE DATE: Fall 2013

Physical Science BA/BS

FROM:	TO:
Physical science is an interdisciplinary major that	Physical science is an interdisciplinary major that
deals with nonliving matter.	deals with nonliving matter.
Bachelor's degree requirements	Bachelor's degree requirements
Students may earn a Bachelor of Science or a	Students may earn a Bachelor of Science or a
Bachelor of Arts degree. Although the classes within	Bachelor of Arts degree. Although the classes within
the major are the same for the BA or the BS degree,	the major are the same for the BA or the BS degree,
will differ as described in the College of Arts and	will differ as described in the College of Arts and
Sciences section. (The significant difference	Sciences section. (The significant difference
between the BA and the BS for the Physical Science	between the BA and the BS for the Physical Science
degree is that the BA requires the equivalent of a	degree is that the BA requires the equivalent of a
level 4 in a foreign language sequence.)	level 4 in a foreign language sequence.)
Both the BA and the BS require a minimum of 120	Both the BA and the BS require a minimum of 120
credits for degree completion. A minimum of 37 of	credits for degree completion. A minimum of 37 of
these credits must be from classes within the major.	these credits must be from classes within the major.
Students must also complete the College of Arts and	Students must also complete the College of Arts and
Sciences basic requirements for degree. These	Sciences basic requirements for degree. These

requirements can be individualized so working with an advisor is recommended.	requirements can be individualized so working with an advisor is recommended.
Students majoring in Physical Science must earn grades of C or better in all courses required for the major, including electives and transfer work.	Students majoring in Physical Science must earn grades of C or better in all courses required for the major, including electives and transfer work.
Required courses for the major	Required courses for the major
Electives Credits: (5-9) DAS 499 - Physical Sciences Senior Report Credits: (1) GEOG 221 - Introductory Physical Geography	Electives Credits: (5-9) DAS 499 - Physical Sciences Senior Report Credits: (1) GEOG 221 - Introductory Physical Geography
Credits: (4) or	Credits: (4) or
GEOL 100 - Earth in Action Credits: (3) and	GEOL 100 - Earth in Action Credits: (3) and
GEOL 103 - Geology Laboratory Credits: (1) MATH 220 - Analytic Geometry and Calculus I Credits: (4) Choose from the following:	GEOL 103 - Geology Laboratory Credits: (1) MATH 220 - Analytic Geometry and Calculus I Credits: (4) Choose from the following:
	Checce from the following.
CHM 210 - Chemistry I Credits: (4) or	CHM 210 - Chemistry I Credits: (4) or
CHM 220 - Honors Chemistry I Credits: (5) and	CHM 220 - Honors Chemistry I Credits: (5) and
CHM 230 - Chemistry II Credits: (4) or	CHM 230 - Chemistry II Credits: (4) or
CHM 250 - Honors Chemistry II Credits: (5) Choose from the following:	CHM 250 - Honors Chemistry II Credits: (5) Choose from the following:
PHYS 113 - General Physics I Credits: (4) or	PHYS 113 - General Physics I Credits: (4) or
PHYS 213 - Engineering Physics I Credits: (5) and	PHYS 213 - Engineering Physics I Credits: (5) and
PHYS 114 - General Physics II Credits: (4) or	PHYS 114 - General Physics II Credits: (4) or
PHYS 214 - Engineering Physics II Credits: (5) Choose one from the following:	PHYS 214 - Engineering Physics II Credits: (5) Choose one from the following:
STAT 325 - Introduction to Statistics Credits: (3)	STAT 325 - Introduction to Statistics Credits: (3)

STAT 340 - Biometrics I Credits: (3)	STAT 340 - Biometrics I Credits: (3)
STAT 410 - Probabilistic Systems Modeling Credits:	STAT 410 - Probabilistic Systems Modeling Credits:
(3)	(3)
STAT 510 - Introductory Probability and Statistics I	STAT 510 - Introductory Probability and Statistics I
Credits: (3)	Credits: (3)
Electives must be selected from the following:	Electives must be selected from the following:
Computing and information sciences—CIS 200 er above Chemistry—CHM 350 , CHM 351 , CHM 371 , CHM 500 er above Geology—GEOL 100 , GEOL 102 , GEOL 103 , GEOL 105 , GEOL 501 er above, except GEOL 512 Geography—GEOG 321 Mathematics—MATH 221 , MATH 222 , MATH 240 , MATH 510 , MATH 540 or MATH 551 Physics—PHYS 122 , PHYS 191 , PHYS 300 or above, except PHYS 515 Statistics—STAT 341 , STAT 511 , or above Note: Problems, seminar, and topics courses are not acceptable unless listed above. At least five elective hours must have a prerequisite. Total hours required for graduation (120 credit hours)	Computing and information sciences—CIS 200 to 799 Chemistry—CHM 350 , CHM 351 , CHM 371 , CHM 500 to 799 Geology—GEOL 100 , GEOL 102 , GEOL 103 , GEOL 105 , GEOL 501 to 799, except GEOL 512 Geography— <u>GEOG 235, GEOG 302, GEOG 508,</u> <u>GEOG 535, GEOG 605, GEOG 711, GEOG 725,</u> <u>GEOG 735</u> Mathematics—MATH 221 , MATH 222 , MATH 240 , MATH 510 , MATH 540 or MATH 551 Physics—PHYS 122 , PHYS 191 , PHYS 300 or above, except PHYS 515 Statistics—STAT 341 , <u>STAT 510 or above</u> Note: Problems, seminar, and topics courses are not acceptable unless listed above. At least five elective hours must have a prerequisite. Total hours required for graduation (120 credit hours)

RATIONALE: Update to reflect changes in department course offerings.

IMPACT: Geography, Statistics. Both departments have indicated their approval.

<u>College of Engineering (4-4-13)</u>

Non-Expedited COURSE PROPOSALS (000-599)

Computing and Information Sciences

Add: CIS 125 Web Page Development

Credits: 3

Catalog Description: The Internet, web browsers, and web-page-development technology: web-page design and implementation with Hypertext Markup Language (HTML), and CSS. Integration of program script into web pages. Introduction to graphics design, animation, and server utilization. 3 hours recitation a week.

Requisites: Prerequisite: CIS 115. Students may enroll in CIS courses only if they have earned a grade of C or better for each prerequisite to those courses.

When Offered: Spring

K-State 8: Empirical and Quantitative Reasoning

Rationale: Web pages have become the dominant form for sharing information on both the internet and private intranets. Further, HTML and CSS are rapidly becoming a standard technology for cross-platform interface design for web, mobile, and desktop software development. As such, it is vital for Information Systems majors to develop a strong understanding of these technologies, and valuable for Computer Scientists as well.

This course will teach students how to develop simple web pages using best design practices, and provide the foundational knowledge to support later coursework dealing with both internet technologies and user interface design. It will be a part of the core curriculum for IS majors, and provide additional options for our CS majors and the broader university audience.

This course will carry the Empirical and Quantitative Reasoning tag because the development of web pages, particularly those that use a scripting language, is a problem-solving activity that requires the use of logical reasoning skills.

Impact: The Department of Engineering Technology offers a related course, CMST 135 Web Page Development I. However, the proposed course provides more emphasis on programming, including integration of program script into web pages. We have informed that department of this proposal.

Effective: Fall 2013

Add: CIS 225 Personal Computer Systems Administration

Credits: 3

Catalog Description: An introduction to the maintenance and configuration of (personal) computer hardware and software: hardware configuration, computer upgrades, installation of system and user software, and local-area network configuration and management. Use of command-line interface and scripting for programming and system administration: file-system management, programming with shell script and interpreted scripting languages. 3 hours recitation a week.

Requisites: Prerequisites: CIS 115 and CIS 125. Students may enroll in CIS courses only if they have earned a grade of C or better for each prerequisite to those courses.

When Offered: Fall

K-State 8: Empirical and Quantitative Reasoning

Rationale: Many of our students are lacking backgrounds in working with operating systems at their lowest levels, and have little or no skills in working with Unix and Linux environments. These skills are necessary for higher-division coursework in our department. This course will develop those skills, as well as providing background in managing information technologies at an enterprise level.

These are foundational skills for the IS graduate, and as such this course will be added to the IS curriculum to meet deficiencies there. For CS majors this course offers additional options as well as valuable preparatory knowledge for working with Linux and Unix environments. This course is also appropriate for the broader university audience interested in IT topics.

This course carries the Empirical and Quantitative Reasoning tag because many of the activities on which this course focuses, included programming with scripting languages, involve problem solving using logical reasoning skills.

Impact: CMST 130 is a related course, but does not include material on Linux/Unix. We have informed the Department of Engineering Technology of this proposal.

Effective: Fall 2013

Add: CIS 527 Enterprise Systems Administration

Credits: 3

Catalog Description: Administration of the Linux operating system, including installation, configuration, distributed file systems, firewalls and security, shell scripting, and user account management. 3 hours recitation a week.

Requisites: Prerequisite: CIS 308 or both CIS 209 and CIS 300. Students may enroll in CIS courses only if they have earned a grade of C or better for each prerequisite to those courses.

When Offered: Spring

K-State 8: Empirical and Quantitative Reasoning

Rationale: This is core material to support an emphasis in systems administration within the IS degree. It will be one of the options for IS specialization courses. This course extends the material in CIS 225 to a multi-user server environment.

This course is tagged with Empirical and Quantitative Reasoning, as the activities covered involve problem solving using logical reasoning.

Impact: The Department of Engineering Technology offers a sequence of courses that cover some overlap of topics, but there is no single current course that offers this set of topics. We have informed that department of this proposal.

Effective: Fall 2013

Add: CIS 595 IS Cooperative Internship

Credits: 1-4

Catalog Description: The intern works in a professional capacity in various areas of Information Systems such as web development, programming, application development, or information technology. Student is supervised by a professional and a faculty member. Written documentation and oral presentation of project goals, experiences, and accomplishments.

Note: One hour of credit for each 120 hours of supervised work. Repeatable for up to 4 credit hours.

Requisites: Prerequisite: CIS 300 and Junior standing in Information Systems. Students may enroll in CIS courses only if they have earned a grade of C or better for each prerequisite to those courses. Prerequisite or concurrent: CIS 501.

When Offered: Fall, Spring, Summer

K-State 8: None

Rationale: The Information Systems degree focuses on deployment of software solutions in various environments. This cooperative internship would give students an opportunity to experience first-hand the challenges faced by Information Systems professionals in an actual application environment.

Impact: None

Effective: Fall 2013

Chemical Engineering

Add: CHE 565. Health and Safety in ChE

Credits: 1

Catalog Description: Fundamentals of chemical process safety, particularly as they apply to process design. Topics will include toxicology and industrial hygiene, fires and explosions, runaway reactions, relief systems, process hazards identification, risk assessment, and inherently safer design.

Note:

Requisites: Prerequisite: CHE 570

When Offered: Spring

K-State 8: None

Rationale: Process safety is becoming increasingly important to the chemical engineering profession. Indeed, accreditation guidelines now require the curriculum to clearly demonstrate an awareness of process hazards. This course address these needs by increasing instructional content concerning process hazards, clearly emphasizing the importance of these concepts within the profession, and providing a clear demonstration of the inclusion of process hazards analysis within the chemical engineering curriculum.

Impact: None

Effective: Spring 2014

Non-Expedited Undergraduate Curriculum Changes

Chemical Engineering

Bachelor of Science – Chemical Engineering

(http://catalog.k-state.edu/preview_program.php?catoid=13&poid=3443&returnto=1326)

RATIONALE: The motivations for the changes in the curriculum presented below are largely two-fold. We wish to follow our Process Analysis Course (CHE 320) immediately with Chemical Engineering Thermodynamics I (CHE 520). In addition accreditation requirements currently require demonstration of significant content of process safety and process hazard analysis within the curriculum. Thus a new course, Health and Safety in Chemical Engineering Systems (CHE 565), has been proposed. Since it will be a required course, its inclusion requires a curriculum revision. The other changes in the senior year distribute the course loads more effectively for the curriculum and course content. All of the other proposed changes are merely redistribution of existing courses.

Impact: None

Effective Date: Fall 2013

From:

To:

Bachelor degree requirements	Bachelor degree requirements
Freshman year	Freshman year
Fall semester (15 credit hours)	Fall semester (15 credit hours)
• Humanities/social science elective Credits: (3)	Humanities/social science elective Credits: (3)
CHE 015 - Engineering Assembly Credits: (0)	CHE 015 - Engineering Assembly Credits: (0)
• CHE 110 - Current Topics in Chemical Engineering Credits: (1)	• CHE 110 - Current Topics in Chemical Engineering Credits: (1)
• CHM 210 - Chemistry I Credits: (4)**	• CHM 210 - Chemistry I Credits: (4)**
• ENGL 100 - Expository Writing I Credits: (3)	• ENGL 100 - Expository Writing I Credits: (3)
 MATH 220 - Analytic Geometry and Calculus I Credits: (4) 	 MATH 220 - Analytic Geometry and Calculus I Credits: (4)
Spring semester (16 credit hours)	Spring semester (16 credit hours)

Humanities/social science elective Credits: (3)	Humanities/social science elective Credits: (3)
• CHE 015 - Engineering Assembly Credits: (0)	• CHE 015 - Engineering Assembly Credits: (0)
• CHM 230 - Chemistry II Credits: (4)**	• CHM 230 - Chemistry II Credits: (4)**
• COMM 105 - Public Speaking IA Credits: (2)	• COMM 105 - Public Speaking IA Credits: (2)
 ECON 110 - Principles of Macroeconomics Credits: (3) 	• ECON 110 - Principles of Macroeconomics Credits: (3)
 MATH 221 - Analytic Geometry and Calculus II Credits: (4) 	 MATH 221 - Analytic Geometry and Calculus II Credits: (4)
Sophomore year	Sophomore year
Fall semester (16 credit hours)	Fall semester (16 credit hours)
• CHE 015 - Engineering Assembly Credits: (0)	CHE 015 - Engineering Assembly Credits: (0)
• [*] CHE 320 - Chemical Process Analysis Credits: (3)	• [*] CHE 320 - Chemical Process Analysis Credits: (3)
 CHM 371 - Chemical Analysis Credits: (4)⁺ 	• CHM 371 - Chemical Analysis Credits: (4) ⁺
 MATH 222 - Analytic Geometry and Calculus III Credits: (4) 	 MATH 222 - Analytic Geometry and Calculus III Credits: (4)
• PHYS 213 - Engineering Physics I Credits: (5)	• PHYS 213 - Engineering Physics I Credits: (5)
Spring semester (17 credit hours)	Spring semester (17 credit hours)
• CHE 015 - Engineering Assembly Credits: (0)	• CHE 015 - Engineering Assembly Credits: (0)
 CHE 354 – Basic Concepts in Materials and Engineering Credits: (1) 	 [*]CHE 416 - Computational Techniques in Chemical Engineering Credits: (3)
 CHE 355 – Fundamentals of Mechanical Properties Credits: (1) 	• <u>CHE 520 - Chemical Engineering</u> <u>Thermodynamics I Credits: (2)</u>
or	• CHM 531 - Organic Chemistry I Credits: (3)
CHE 356 – Fundamentals of Electrical Properties Credits: (1)	 MATH 240 - Elementary Differential Equations Credits: (4)
• [*] CHE 416 - Computational Techniques in Chemical Engineering Credits: (3)	• PHYS 214 - Engineering Physics II Credits: (5)

CHM 531 - Organic Chemistry I Credits: (3)	
 MATH 240 - Elementary Differential Equations Credits: (4) 	
• PHYS 214 - Engineering Physics II Credits: (5)	
Junior year	Junior year
Fall semester (16 credit hours)	Fall semester (16 <u>17</u> credit hours)
 Chemistry/biochemistry elective[‡] Credits: (3) Advanced laboratory experience[§] Credits: (2) Humanities/social science elective Credits: (3) CHE 015 - Engineering Assembly Credits: (0) [‡]CHE 520 - Chemical Engineering Thermodynamics I Credits: (2) [*]CHE 530 - Transport Phenomena I Credits: (3) ENGL 415 - Written Communication for Engineers Credits: (3) 	 Chemistry/biochemistry elective[‡] Credits: (3) Advanced laboratory experience[§] Credits: (2) Humanities/social science elective Credits: (3) CHE 015 - Engineering Assembly Credits: (0) <u>*CHE 521 - Chemical Engineering</u> <u>Thermodynamics II Credits: (3)</u> *CHE 530 - Transport Phenomena I Credits: (3) ENGL 415 - Written Communication for Engineers Credits: (3)
Spring semester (15 credit hours)	Spring semester (15 <u>14</u> credit hours)
• Technical elective Credits: (3)	Technical elective Credits: (3)
• CHE 015 - Engineering Assembly Credits: (0)	CHE 015 - Engineering Assembly Credits: (0)
 <u>*CHE 521 - Chemical Engineering</u> <u>Thermodynamics II Credits: (3)</u> 	• [*] CHE 531 - Transport Phenomena II Credits: (3)
• [*] CHE 531 - Transport Phenomena II Credits: (3)	 [*]CHE 535 - Transport Phenomena Laboratory Credits: (3)
 *CHE 535 - Transport Phenomena Laboratory Credits: (3) 	• CHM 595 - Physical Chemistry II Credits: (3)
• CHM 595 - Physical Chemistry II Credits: (3)	• CHE 354 – Basic Concepts in Materials and

	Engineering Credits: (1)
	• <u>CHE 355 – Fundamentals of Mechanical</u> <u>Properties Credits: (1)</u>
	<u>or</u>
	<u>CHE 356 – Fundamentals of Electrical Properties Credits:</u> (<u>1</u>)
Senior year	Senior year
Fall semester (17 credit hours)	Fall semester (17 <u>18</u> credit hours)
• Technical elective Credits: (3)	• Technical elective Credits: (3)
 UGE ≥ 300 level humanities and social science elective Credits: (6) 	 UGE ≥ 300 level humanities and social science elective Credits: (6)
• CHE 015 - Engineering Assembly Credits: (0)	• CHE 015 - Engineering Assembly Credits: (0)
 CHE 550 - Chemical Reaction Engineering Credits: (3) 	 []CHE 550 - Chemical Reaction Engineering Credits: (3)
 CHE 560 - Separational Process Design Credits: (3) 	 []CHE 560 - Separational Process Design Credits: (3)
 CHE 570 - Chemical Engineering Systems Design I Credits: (2) 	 []CHE 570 - Chemical Engineering Systems Design I Credits: (2 <u>3</u>)
Spring semester (16 credit hours)	Spring semester (16 credit hours)
• Chemical engineering elective Credits: (3)	• Chemical engineering elective Credits: (3)
• Unrestricted elective Credits: (3)	• Unrestricted elective Credits: (3)
• CHE 015 - Engineering Assembly Credits: (0)	• CHE 015 - Engineering Assembly Credits: (0)
 *CHE 542 - Unit Operations Laboratory Credits: (3) 	 *CHE 542 - Unit Operations Laboratory Credits: (3)
• CHE 561 - Chemical Process Dynamics and Control Credits: (3)	• CHE 561 - Chemical Process Dynamics and Control Credits: (3)
 [*]CHE 571 - Chemical Engineering Systems 	 *CHE 571 - Chemical Engineering Systems Design

	ll Credits: (4 <u>3)</u>
	<u>CHE 565 – Health and Safety in Chemical</u>
	Engineering Systems (1)
1	lotes
es form the chemical engineering core	
*	These courses form the chemical engineering core
r i i i i i i i i i i i i i i i i i i i	program.
rinciples I (CHM 220) and Chemical	5
(CHM 250) may be taken instead of CHM *	*Chemical Principles I (CHM 220) and Chemical
30, and CHM 371. If this option is elected,	Principles II (CHM 250) may be taken instead of CHM
l credit hours of technical electives are to be 2	210, CHM 230, and CHM 371. If this option is elected,
t	wo additional credit hours of technical electives are to be
iochemistry/biology electives: Chemistry:	
ctions include Organic Chemistry II (CHM	Chemistry/biochemistry/biology electives: Chemistry:
ental Analysis (CHM 566), and Physical	Possible selections include Organic Chemistry II (CHM
CHM 585). Biochemistry: Possible 5	550), Instrumental Analysis (CHM 566), and Physical
lies of Biomacromolecules (BIOCH 521),	Chemistry I (CHM 585). Biochemistry: Possible selections nelude General Biochemistry (BIOCH 521). Physical
I (BIOCH 755), and Biochemistry II	Studies of Biomacromolecules (BIOCH 521), 1 Hysical
; Biology: BIOL 450 or above; some	Biochemistry I (BIOCH 755), and Biochemistry II
ses include Modern Genetics (BIOL 450), (BIOCH 765); Biology: BIOL 450 or above; some
Eundamentals of Ecology (BIOL 529) or	bossible courses include Modern Genetics (BIOL 450),
(BIOL 541).	BIOL 500). Fundamentals of Ecology (BIOL 529) or Cell
Ì	Biology (BIOL 541).
d laboratory experience is to be a 2-credit-	
ry course selected from the following	The advanced laboratory experience is to be a 2-credit-
hods Laboratory (CHM 596), General	our laboratory course selected from the following courses: Organic Chemistry Laboratory (CHM 532)
Laboratory (BIOCH 522), or Biochemistry	Physical Methods Laboratory (CHM 596), General
(BIOCH 756).	Biochemistry Laboratory (BIOCH 522), or Biochemistry I
ntal manimum anto halour must be actively 1	Laboratory (BIOCH 756).
ritar requirements below must be satisfied.	The departmental requirements below must be satisfied
rs of electives are required, and they are to	ine departmental requirements below must be satisfied.
α consultation with the student's advisor ΔII	2 credit hours of electives are required, and they are to
t be on the lists approved by the	be selected in consultation with the student's advisor. All
or have the approval of the denartment	electives must be on the lists approved by the
st support the program educational	lepartment or have the approval of the department head
d student outcomes of the chemical	ind must support the program educational objectives and
program. A student's overall program of	tudent outcomes of the chemical engineering program.
neet university general education (K-State 8)	A student's overall program of study must meet university
the required and elective components can	eneral education (K-State 8) criteria: both the required
satisfying the K-State 8 criteria. 14 credit	ind elective components can contribute to satisfying the
nical electives are required. These electives	-State 8 criteria. 14 credit hours of technical electives
es form the chemical engineering core rinciples I (CHM 220) and Chemical (CHM 250) may be taken instead of CHM 60, and CHM 371. If this option is elected, I credit hours of technical electives are to be iochemistry/biology electives: Chemistry: tions include Organic Chemistry II (CHM ental Analysis (CHM 566), and Physical CHM 585). Biochemistry (BIOCH 521), ies of Biomacromolecules (BIOCH 590), I (BIOCH 755), and Biochemistry II cy Biology: BIOL 450 or above; some ses include Modern Genetics (BIOL 450), obiology (BIOL 455), Plant Physiology Fundamentals of Ecology (BIOL 529) or (BIOL 541). d laboratory experience is to be a 2-credit- ry course selected from the following mic Chemistry Laboratory (CHM 532), hods Laboratory (CHM 596), General Laboratory (BIOCH 522), or Biochemistry (BIOCH 756). ental requirements below must be satisfied. rs of electives are required, and they are to n consultation with the student's advisor. All st be on the lists approved by the or have the approval of the department st support the program educational d student outcomes of the chemical program. A student's overall program of set university general education (K-State 8) n the required and elective components can satisfying the K-State 8 criteria. 14 credit nical electives are required. These electives	 <u>Engineering Systems (1)</u> <u>Engineering Systems (1)</u> Notes These courses form the chemical engineering core or orgram. [*]Chemical Principles I (CHM 220) and Chemical Trinciples II (CHM 250) may be taken instead of CHM 210, CHM 230, and CHM 371. If this option is elected, wo additional credit hours of technical electives are to telected. Chemistry/biochemistry/biology electives: Chemistry: Possible selections include Organic Chemistry II (CHM 550), Instrumental Analysis (CHM 566), and Physical Studies of Biomacromolecules (BIOCH 521), Physical Studies of Biomacromolecules (BIOCH 590), Biochemistry I (BIOCH 755), and Biochemistry II BIOCH 765); Biology: BIOL 450 or above; some possible courses include Modern Genetics (BIOL 450), General Microbiology (BIOL 455), Plant Physiology BIOL 500), Fundamentals of Ecology (BIOL 529) or C Biology (BIOL 541). The advanced laboratory experience is to be a 2-creditiour laboratory course selected from the following pourses: Organic Chemistry Laboratory (CHM 596), General Biochemistry Laboratory (BIOCH 522), or Biochemistry Laboratory (BIOCH 520). Che departmental requirements below must be satisfied. E2 credit hours of electives are required, and they are the selected in consultation with the student's advisor. Attention of the program educational objectives at tudent outcomes of the chemical engineering program A student's overall program of study must meet universe teneral education (K-State 8) criteria; both the require and elective components can contribute to satisf

must include one chemistry/biochemistry/biology (3	are required. These electives must include one	
credit hours) course, an advanced laboratory experience	chemistry/biochemistry/biology (3 credit hours) course	
(2 credit hours), and a chemical engineering elective (3	an advanced laboratory experience (2 credit hours), and	
credit hours).	chemical engineering elective (3 credit hours).	
The remaining 6 credit hours of technical electives are to	The remaining 6 credit hours of technical electives are to	
be chosen from courses identified as engineering topics,	be chosen from courses identified as engineering topics,	
with at least one course selected from either analytical	with at least one course selected from either analytical	
mechanics (both statics and dynamics must be	mechanics (both statics and dynamics must be	
represented) or circuits, fields, and electronics.	represented) or circuits, fields, and electronics.	
 15 credit hours of social sciences and	 15 credit hours of social sciences and humanities	
humanities electives are required. These courses	electives are required. These courses are to be	
are to be selected from the list approved by the	selected from the list approved by the College of	
College of Engineering. At least 6 credit hours of	Engineering. At least 6 credit hours of 300-level	
300-level or higher courses must be included	or higher courses must be included within these	
within these 15 credit hours. All courses must be	15 credit hours. All courses must be taken for a	
taken for a letter grade.	letter grade.	
• Three (3) credit hours of unrestricted elective are to be selected from courses numbered 100 or higher, excluding courses listed as a prerequisite to a required course.	• Three (3) credit hours of unrestricted elective are to be selected from courses numbered 100 or higher, excluding courses listed as a prerequisite to a required course.	
A grade of C or higher in each course within the chemical engineering core program is required for graduation.	A grade of C or higher in each course within the chemical engineering core program is required for graduation.	
Total hours required for graduation (128)	Total hours required for graduation (128 129)	

Computing and Information Sciences

Changes to Bachelor of Science - Information Sciences Curriculum

(http://catalog.k-state.edu/preview_program.php?catoid=13&poid=3441&returnto=1331)

Drop:		Add:	
CMST 135 Web Page Development I	3	CIS 125 Web Page Development	3
CIS 301 Logical Foundations of Programming	3	CIS 225 Personal Computer Systems	3
		Administration	
CIS 540 Software Engineering Project I	3	CIS 551 Computer Security	3
Or			
CIS 543 Software Engineering Design Project			
CIS 450 Computer Architecture and	3	IS specialization electives	6
Operations			
CIS 526 Web Interface Design	3		
ACCTG 231 Accounting for Business	3	Information Systems Environment	9
Operations		electives	
Technical electives	6		
ENGL 516 Written Communication for the	3	ENGL 417 Written Communication for the	3
Sciences		Workplace	
Humanities/social science elective	3	CIS 595 IS Cooperative Internship	4
Natural science electives with laboratory	8	Communication electives	6
		Unrestricted electives	1
Total	38		38

Notes:

- [New] IS specialization electives. Any 2 of the following:
 - o CIS 450 Computer Architecture and Operations (3 credits)
 - o CIS 526 Web Interface Design (3 credits)
 - CIS 527 Enterprise Systems Administration (3 credits)
- [New] Information Systems Environment electives. An approved sequence of 9 credits in an application domain where information systems are employed.
- [Modified] Communication Electives. 3 9 credits chosen from the following:
 - o COMM 322 Interpersonal Communication (3 credits)
 - o COMM 326 Small Group Discussion Methods (3 credits)
 - o LEAD 212 Introduction to Leadership Concepts (3 credits)
 - MANGT 420 Management Concepts (3 credits)
 - o MKTG 400 Introduction to Marketing (3 credits)
 - THTRE 261 Fundamentals of Acting (3 credits)
 - THTRE 265 Fundamentals of Improvisation I, II (3 credits)

Rationale: In recent years, enrollment in the Information Systems (IS) program has dropped to the point where it may not be sustainable in its current form. We have done a comprehensive review of the needs for such a

program, using input from our Industrial Advisory Board, and have determined that several revisions are in necessary in order to make the program viable.

Information Systems is the study of applying Information Technology to managing information and enabling communication and commerce. Under the proposed revisions, IS majors learn to build and administer computer networks, web servers, and enterprise information systems. Software-programming skills, as employed by system developers and administrators, are included in the program. Students participate in an internship-and-coursework program that provides background and project work in an application domain where information systems are applied professionally.

An IS major develops skills in

- internet-based information retrieval, communication, and commerce, via courses on web page development, web-interface design, and enterprise information systems
- systems administration, through courses on computer engineering, computer architecture, telecommunications, and systems administration
- software development, via courses on scripting, object-oriented programming, data structures, and software architecture
- communication with clients and colleagues, through a communications course sequence and the internship-and-coursework program.

The IS degree qualifies a graduate for positions in firms that require database administrators, enterpriseinformation-system developers and administrators, web-server developers, and software programmers/engineers.

The proposed revisions were designed with a view toward applying for accreditation for the IS program. These proposed revisions are therefore consistent with the ABET Criteria for Information Systems.

The rationale for each specific change is given in what follows.

- **Replace CMST 135 with CIS 125:** CMST 135 does not cover the depth of material that we would like for our IS students to see in their first year. Specifically, we would like for our IS students to gain some programming experience prior to taking CIS 200.
- **Replace CIS 301 and CIS 543 (or 540) with CIS 225 and CIS 551:** Symbolic logic and software engineering are not central to the deployment or administration of information systems. On the other hand, CIS 225 would provide students with several necessary IT skills, and CIS 551 would introduce students to the security issues that are inherent in any information system.
- **Replace CIS 450 and CIS 526 with IS specialization electives:** Both CIS 450 and CIS 526 are useful courses for IS students, as would be the proposed CIS 527. However, overloading students with too many technical courses at once is counter-productive, as students tend to learn less of all of the material they are studying. We therefore concluded that missing one of these three courses would

not harm students, as they are exposed to hardware concepts in ECE 241, to web-based technologies in CIS 125 and CIS 562, and to systems administration topics in CIS 225.

- Replace ACCTG 231 and technical electives with Information Systems Environment electives. This change is mainly a change in terminology, as the technical electives for IS students currently fulfill the same role as the proposed Information Systems Environment classes. We are changing the terminology to be consistent with language in the ABET criteria. ACCTG 231 can still be taken as an Information Systems Environment elective, but this change will allow more flexibility for students to study the application domain of their choice.
- **Replace ENGL 516 with ENGL 417.** IS students will not typically be doing scientific writing in their careers. ENGL 417 seems to fit the needs of our IS students better.
- Replace 3 credits of humanities/social science electives and 8 credits of natural science electives with CIS 595, 6 additional credits of communication electives, and 1 additional credit of unrestricted electives. 18 hours of humanities and social sciences is more than most programs in the College of Engineering require, and more than our IS students need. Furthermore, natural sciences are not essential to the field of Information Systems, as reflected by an absence of any such requirement in the ABET criteria for Information Systems. We are therefore reducing these requirements to 15 hours of humanities and social sciences and 3 hours of natural sciences. These requirements are sufficient to cover the K-State 8 requirements. Much more important for Information Systems students are experience in an application domain and further development of their communication skills. CIS 595 will give them experience in an industrial application domain. We chose to allow up to 4 credits for this experience in order accumulate 16 credits of Information Systems Environment courses, as required by ABET (9 credits of Information Systems Environment electives, 4 credits of CIS 595, and 3 credits of CIS 597 Information Systems Project). We anticipate that the additional 6 credits of communication electives, chosen from a wider selection of courses, will greatly enhance the students' communication skills. In order to maintain a total of 124 credits for the degree, we added 1 additional credit of unrestricted electives.

Impact: The requirement of ENGL 516 is being changed to ENGL 417. We are dropping ACCTG 231, though some students may still use it as an Information Systems Environment elective. We are also dropping CMST 135. We have informed the Departments of English, Accounting, and Engineering Technology of this proposal. As a result of the revised Communication requirements, more of our students will be taking courses from the Departments of Communication Studies, Marketing, and Management, as well as the Schools of Leadership Studies and of Music, Theatre, and Dance. We have informed each of these units of this proposal. As a result of the revised Natural Sciences requirement, IS students will be taking fewer Natural Science courses; however, due to the current size of our IS program, the impact to any one of these units will be negligible.

Effective: Fall 2013

Freshman year	Freshman year
Fall semester (15 credit hours)	Fall semester (15 credit hours)
 Humanities/social science elective (first of six) Credits: (3) 	 Humanities/social science elective (first of <u>five</u>) Credits: (3)
• Unrestricted elective Credits: (3)	• Unrestricted elective Credits: (3)
 CIS 115 - Introduction to Computing Science Credits: (3) 	• CIS 115 - Introduction to Computing Science Credits: (3)
• ENGL 100 - Expository Writing I Credits: (3)	• ENGL 100 - Expository Writing I Credits: (3)
 MATH 205 - General Calculus and Linear Algebra Credits: (3) 	 MATH 205 - General Calculus and Linear Algebra Credits: (3)
Spring semester (14-15 credit hours)	Spring semester (14-15 credit hours)
 Humanities/social science elective (second of six) Credits: (3) 	 Humanities/social science elective (second of <u>five</u>) Credits: (3)
 Natural science elective (first of three) Credits: (3) 	Natural science elective Credits: (3)
 CMST 135 - Web Page Development + Credits: (3) 	 <u>CIS 125</u> - Web Page Development Credits: (3) COMM 105 - Public Speaking IA Credits: (2)
• COMM 105 - Public Speaking IA Credits: (2)	or
or	• COMM 106 - Public Speaking I Credits: (3)
• COMM 106 - Public Speaking I Credits: (3)	• ECE 241 - Introduction to Computer Engineering Credits: (3)
• ECE 241 - Introduction to Computer Engineering Credits: (3)	
Sophomore year	Sophomore year
Fall semester (16 credit hours)	Fall semester (16 credit hours)
 Humanities/social science elective (third of six) Credits: (3) 	 Humanities/social science elective (third of <u>five</u>) Credits: (3)
 Unrestricted elective Credits: (3) 	 CIS 200 - Programming Fundamentals Credits: (4)
• CIS 200 - Programming Fundamentals Credits:	

(Λ)	CIS 22E Dersonal Computer Systems
(+)	• <u>CIS 225 – Personal Computer Systems</u>
 ECON 110 - Principles of Macroeconomics 	Administration Credits: (5)
Credits: (3)	FCON 110 - Principles of Macroeconomics
	Credits: (3)
• ENGL 200 - Expository Writing II Credits: (3)	
	• ENGL 200 - Expository Writing II Credits: (3)
Spring competer (15 credit hours)	
spring semester (15 credit nours)	Contraction (45, 46, and the bound)
 Natural science elective with laboratory 	Spring semester (15 <u>-16</u> credit nours)
(second of three) Credite: (4)	• Uprestricted elective Credits: (3-4)
	o mestileted elective credits . (<u>5-4</u>)
• Unrestricted elective Credits: (2)	• CIS 300 - Data and Program Structures Credits:
	(3)
 CIS 300 - Data and Program Structures 	
Credits: (3)	 Communication Elective (first of three)
	Credits: (3)
 CIS 301 - Logical Foundations of Programming 	
Credits: (3)	Humanities/social science elective (fourth of
	five) Credits: (3)
• • Communication Elective Credits: (3)	
	Information Systems Environment elective
	(first of three) Credits: (3)
Junior year	Junior year
Junior year Fall semester (16 credit hours)	Junior year
Junior year Fall semester (16 credit hours)	Junior year Fall semester (16 credit hours)
Junior year Fall semester (16 credit hours) Unrestricted elective Credits: (3)	Junior year Fall semester (16 credit hours)
Junior year Fall semester (16 credit hours) • Unrestricted elective Credits: (3)	Junior year Fall semester (16 credit hours) • Unrestricted elective Credits: (3)
Junior year Fall semester (16 credit hours) Unrestricted elective Credits: (3) ACCTG 231 - Accounting for Business	Junior year Fall semester (16 credit hours) Unrestricted elective Credits: (3) Information Systems Environment elective
Junior year Fall semester (16 credit hours) • Unrestricted elective Credits: (3) • ACCTG 231 - Accounting for Business Operations Credits: (3)	Junior year Fall semester (16 credit hours) • Unrestricted elective Credits: (3) • Information Systems Environment elective (second of three) Credits: (3)
Junior year Fall semester (16 credit hours) • Unrestricted elective Credits: (3) • ACCTG 231 - Accounting for Business Operations Credits: (3)	Junior year Fall semester (16 credit hours) • Unrestricted elective Credits: (3) • Information Systems Environment elective (second of three) Credits: (3)
Junior year Fall semester (16 credit hours) • Unrestricted elective Credits: (3) • ACCTG 231 - Accounting for Business Operations Credits: (3) • CIS 308 - C/C++ Language Laboratory Credits:	 Junior year Fall semester (16 credit hours) Unrestricted elective Credits: (3) Information Systems Environment elective (second of three) Credits: (3) CIS 308 - C/C++ Language Laboratory Credits:
Junior year Fall semester (16 credit hours) • Unrestricted elective Credits: (3) • ACCTG 231 - Accounting for Business Operations Credits: (3) • CIS 308 - C/C++ Language Laboratory Credits: (1)	Junior year Fall semester (16 credit hours) • Unrestricted elective Credits: (3) • Information Systems Environment elective (second of three) Credits: (3) • CIS 308 - C/C++ Language Laboratory Credits: (1)
Junior year Fall semester (16 credit hours) • Unrestricted elective Credits: (3) • ACCTG 231 - Accounting for Business Operations Credits: (3) • CIS 308 - C/C++ Language Laboratory Credits: (1)	 Junior year Fall semester (16 credit hours) Unrestricted elective Credits: (3) Information Systems Environment elective (second of three) Credits: (3) CIS 308 - C/C++ Language Laboratory Credits: (1)
Junior year Fall semester (16 credit hours) • Unrestricted elective Credits: (3) • ACCTG 231 - Accounting for Business Operations Credits: (3) • CIS 308 - C/C++ Language Laboratory Credits: (1) • CIS 501 - Software Architecture and Design	Junior year Fall semester (16 credit hours) • Unrestricted elective Credits: (3) • Information Systems Environment elective (second of three) Credits: (3) • CIS 308 - C/C++ Language Laboratory Credits: (1) • CIS 501 - Software Architecture and Design
Junior year Fall semester (16 credit hours) • Unrestricted elective Credits: (3) • ACCTG 231 - Accounting for Business Operations Credits: (3) • CIS 308 - C/C++ Language Laboratory Credits: (1) • CIS 501 - Software Architecture and Design Credits: (3)	Junior year Fall semester (16 credit hours) • Unrestricted elective Credits: (3) • Information Systems Environment elective (second of three) Credits: (3) • CIS 308 - C/C++ Language Laboratory Credits: (1) • CIS 501 - Software Architecture and Design Credits: (3)
Junior year Fall semester (16 credit hours) • Unrestricted elective Credits: (3) • ACCTG 231 - Accounting for Business Operations Credits: (3) • CIS 308 - C/C++ Language Laboratory Credits: (1) • CIS 501 - Software Architecture and Design Credits: (3) • ENGL 516 - Written Communication for the	 Junior year Fall semester (16 credit hours) Unrestricted elective Credits: (3) Information Systems Environment elective (second of three) Credits: (3) CIS 308 - C/C++ Language Laboratory Credits: (1) CIS 501 - Software Architecture and Design Credits: (3)
Junior year Fall semester (16 credit hours) • Unrestricted elective Credits: (3) • ACCTG 231 - Accounting for Business Operations Credits: (3) • CIS 308 - C/C++ Language Laboratory Credits: (1) • CIS 501 - Software Architecture and Design Credits: (3) • ENGL 516 - Written Communication for the Sciences Credits: (3)	Junior year Fall semester (16 credit hours) • Unrestricted elective Credits: (3) • Information Systems Environment elective (second of three) Credits: (3) • CIS 308 - C/C++ Language Laboratory Credits: (1) • CIS 501 - Software Architecture and Design Credits: (3) • ENGL <u>417</u> - Written Communication for the
Junior year Fall semester (16 credit hours) • Unrestricted elective Credits: (3) • ACCTG 231 - Accounting for Business Operations Credits: (3) • CIS 308 - C/C++ Language Laboratory Credits: (1) • CIS 501 - Software Architecture and Design Credits: (3) • ENGL 516 - Written Communication for the Sciences Credits: (3)	Junior year Fall semester (16 credit hours) • Unrestricted elective Credits: (3) • Information Systems Environment elective (second of three) Credits: (3) • CIS 308 - C/C++ Language Laboratory Credits: (1) • CIS 501 - Software Architecture and Design Credits: (3) • ENGL <u>417</u> - Written Communication for the Workplace Credits: (3)
Junior year Fall semester (16 credit hours) • Unrestricted elective Credits: (3) • ACCTG 231 - Accounting for Business Operations Credits: (3) • CIS 308 - C/C++ Language Laboratory Credits: (1) • CIS 501 - Software Architecture and Design Credits: (3) • ENGL 516 - Written Communication for the Sciences Credits: (3) • STAT 325 - Introduction to Statistics Credits:	 Junior year Fall semester (16 credit hours) Unrestricted elective Credits: (3) Information Systems Environment elective (second of three) Credits: (3) CIS 308 - C/C++ Language Laboratory Credits: (1) CIS 501 - Software Architecture and Design Credits: (3) ENGL <u>417</u> - Written Communication for the Workplace Credits: (3)
Junior year Fall semester (16 credit hours) • Unrestricted elective Credits: (3) • ACCTG 231 - Accounting for Business Operations Credits: (3) • CIS 308 - C/C++ Language Laboratory Credits: (1) • CIS 501 - Software Architecture and Design Credits: (3) • ENGL 516 - Written Communication for the Sciences Credits: (3) • STAT 325 - Introduction to Statistics Credits: (3)	 Junior year Fall semester (16 credit hours) Unrestricted elective Credits: (3) Information Systems Environment elective (second of three) Credits: (3) CIS 308 - C/C++ Language Laboratory Credits: (1) CIS 501 - Software Architecture and Design Credits: (3) ENGL <u>417</u> - Written Communication for the Workplace Credits: (3) Communication elective (second of three) Credits: (2)
Junior year Fall semester (16 credit hours) • Unrestricted elective Credits: (3) • ACCTG 231 - Accounting for Business Operations Credits: (3) • CIS 308 - C/C++ Language Laboratory Credits: (1) • CIS 501 - Software Architecture and Design Credits: (3) • ENGL 516 - Written Communication for the Sciences Credits: (3) • STAT 325 - Introduction to Statistics Credits: (3)	Junior year Fall semester (16 credit hours) Unrestricted elective Credits: (3) Information Systems Environment elective (second of three) Credits: (3) CIS 308 - C/C++ Language Laboratory Credits: (1) CIS 501 - Software Architecture and Design Credits: (3) ENGL <u>417</u> - Written Communication for the Workplace Credits: (3) Communication elective (second of three) Credits: (3)
Junior year Fall semester (16 credit hours) • Unrestricted elective Credits: (3) • ACCTG-231 - Accounting for Business Operations Credits: (3) • CIS 308 - C/C++ Language Laboratory Credits: (1) • CIS 501 - Software Architecture and Design Credits: (3) • ENGL 516 - Written Communication for the Sciences Credits: (3) • STAT 325 - Introduction to Statistics Credits: (3)	 Junior year Fall semester (16 credit hours) Unrestricted elective Credits: (3) Information Systems Environment elective (second of three) Credits: (3) CIS 308 - C/C++ Language Laboratory Credits: (1) CIS 501 - Software Architecture and Design Credits: (3) ENGL <u>417</u> - Written Communication for the Workplace Credits: (3) Communication elective (second of three) Credits: (3)
 Junior year Fall semester (16 credit hours) Unrestricted elective Credits: (3) ACCTG 231 - Accounting for Business Operations Credits: (3) CIS 308 - C/C++ Language Laboratory Credits: (1) CIS 501 - Software Architecture and Design Credits: (3) ENGL 516 - Written Communication for the Sciences Credits: (3) STAT 325 - Introduction to Statistics Credits: (3) 	 Junior year Fall semester (16 credit hours) Unrestricted elective Credits: (3) Information Systems Environment elective (second of three) Credits: (3) CIS 308 - C/C++ Language Laboratory Credits: (1) CIS 501 - Software Architecture and Design Credits: (3) ENGL 417 - Written Communication for the Workplace Credits: (3) Communication elective (second of three) Credits: (3)
Junior year Fall semester (16 credit hours) • Unrestricted elective Credits: (3) • ACCTG 231 - Accounting for Business Operations Credits: (3) • CIS 308 - C/C++ Language Laboratory Credits: (1) • CIS 501 - Software Architecture and Design Credits: (3) • ENGL 516 - Written Communication for the Sciences Credits: (3) • STAT 325 - Introduction to Statistics Credits: (3)	Junior year Fall semester (16 credit hours) Unrestricted elective Credits: (3) Information Systems Environment elective (second of three) Credits: (3) CIS 308 - C/C++ Language Laboratory Credits: (1) CIS 501 - Software Architecture and Design Credits: (3) ENGL 417 - Written Communication for the Workplace Credits: (3) Communication elective (second of three) Credits: (3) Spring semester (15 credit hours)

•	Humanities/social science elective (fourth of
	six) Credits: (3)

- Unrestricted elective Credits: (6-7)
- CIS 450 Computer Architecture and Operations Credits: (3)
- CIS 526 Web Interface Design Credits: (3)

Senior year

Fall semester (16 credit hours)

- Technical elective Credits: (3)
- Humanities/social science elective (fifth of six)
 Credits: (3)
- CIS 415 Computers and Society **Credits:** (1)
- CIS 525 Telecommunications and Data Communication Systems **Credits:** (3)
- CIS 540 Software Engineering Project I
 Credits: (3)

or

- CIS 543 Software Engineering Design Project
 Credits: (3)
- CIS 562 Enterprise Information Systems Credits: (3)

Spring semester (16 credit hours)

- Humanities/social science elective (sixth of six) Credits: (3)
- Natural science elective with laboratory (third of three) Credits: (4)

- Humanities/social science elective (<u>fifth</u> of <u>five</u>) Credits: (3)
- <u>Information System Environment</u> elective (third of three) **Credits:** (<u>3</u>)
- <u>STAT 325 Introduction to Statistics</u> Credits: (3)
- <u>Communication elective (third of three)</u> Credits: (3)
- IS specialization elective (first of two) Credits:
 (3)

Senior year

Fall semester (16 credit hours)

- <u>Unrestricted</u> elective Credits: (<u>6</u>)
- CIS 415 Computers and Society Credits: (1)
- CIS 525 Telecommunications and Data Communication Systems **Credits:** (3)
- CIS <u>551 Computer Security</u> Credits: (3)
- CIS 562 Enterprise Information Systems Credits: (3)

Spring semester (16 credit hours)

- <u>CIS 595 IS Cooperative Internship</u> Credits: (4)
- <u>IS specialization</u> elective <u>(second of two)</u> **Credits:** (3)

• Technical elective Credits: (3)	Unrestricted electives Credits: (<u>6</u>)
 Unrestricted electives Credits: (3) CIS 597 - Information Systems Project Credits: (3) 	 CIS 597 - Information Systems Project Credits: (3)
Notes	Notes
A grade of C or better is required for all graded courses listed by specific course number above.	A grade of C or better is required for all graded courses listed by specific course number above.
All students new to the CIS department must complete CIS 115.	All students new to the CIS department must complete CIS 115.
Humanities/social science electives must be taken from the list of courses approved by the College of Engineering.	Humanities/social science electives must be taken from the list of courses approved by the College of Engineering.
 *Communications Elective Credits: (3) The Communications Elective must be chosen from: COMM 322 - Interpersonal Communication Credits: (3) COMM 326 - Small Group Discussion Methods Credits: (3) MANGT 420 - Management Concepts Credits: (3) THTRE 261 - Fundamentals of Acting Credits: (3) THTRE 265 - Fundamentals of Improvisation I, II Credits: (3) 	 The Communications Electives must be chosen from: COMM 322 - Interpersonal Communication Credits: (3) COMM 326 - Small Group Discussion Methods Credits: (3) LEAD 212 - Introduction to Leadership Concepts Credits: (3) MANGT 420 - Management Concepts Credits: (3) MKTG 400 - Introduction to Marketing Credits: (3) THTRE 261 - Fundamentals of Acting Credits: (3) THTRE 265 - Fundamentals of Improvisation I, II Credits: (3)
	The IS specialization electives must be chosen from: • CIS 450 Computer Architecture and Operations

	<u>Credits: (3)</u>
	 <u>CIS 526 Web Interface Design Credits: (3)</u> <u>CIS 527 Enterprise Systems Administration</u> <u>Credits: (3)</u>
	Information Systems Environment electives must be an approved sequence of courses in an application domain where information systems are employed.
Total hours required for graduation (124)	Total hours required for graduation (124)
NOTE: K-State 8 General Education Requirements	NOTE: K-State 8 General Education Requirements
IMPORTANT NOTES: Students who first enroll in Summer 2011 or later must meet the requirements of the K-State 8 General Education Program.	IMPORTANT NOTES: Students who first enroll in Summer 2011 or later must meet the requirements of the K-State 8 General Education Program.
Students who began their programs of study in earlier terms under the University General Education (UGE) program may complete their degrees with UGE requirements or may choose to move to the K-State 8. Students should check with their academic advisors to determine which choice would be better. To switch, students must consult with their academic	Students who began their programs of study in earlier terms under the University General Education (UGE) program may complete their degrees with UGE requirements or may choose to move to the K-State 8. Students should check with their academic advisors to determine which choice would be better. To switch, students must consult with their academic advisors.
advisors. Students who are readmitted in Summer 2011 and later will be designated as meeting the K-State 8 by the Office of Admissions. Deans' offices can make an exception for the readmitted student who has completed UGE or who would prefer to complete	Students who are readmitted in Summer 2011 and later will be designated as meeting the K-State 8 by the Office of Admissions. Deans' offices can make an exception for the readmitted student who has completed UGE or who would prefer to complete UGE requirements.
UGE requirements. For additional information about the University	For additional information about the University General Education program, check the requirements specified by the College of Engineering.

General Education program, check the requirements

specified by the College of Engineering.

Graduate School (3-5-13 & 4-2-13)

Non-Expedited New Courses

EDACE 822. <u>International Adult Education and Literacy</u>. (3) II, S. This course provides an introduction to the foundations of global, political, social-economic and educational issues facing international adult education and literacy students for English as a Second Language learners. Pre-Requisite: EDACE 820</u>

IMPACT: Since a program evaluation course is available in the College of Human Ecology, FSHS 893, Program Evaluation in Human Services, support for the proposed course was obtained from Dr. MacDonald.

RATIONALE: With the increasing globalization and the influx of adults without English skills in the workforce, there is a need to address the issues of culture and diversity in education settings. This course fulfills a requirement for the Graduate Certificate: Teaching English as a Second Language (TESL) for Adult Learners.

EFFECTIVE DATE: Spring 2014

EDCEP 821. Fundamentals of Program Evaluation. (3) I. Catalog description: Theory, approaches, and fundamental skills for planning and implementing program evaluation; focus on research (and evaluation) designs and methods; includes evaluation professional standards and ethics.

Additional information: This course has the general purpose of helping students develop knowledge and a skill set related to the evaluation of formal and informal education and social service programs. Theoretical perspectives of evaluation will be combined with major approaches to evaluation. Designed in a seminar format, this course provides students with opportunities to engage in the development of learning communities as they learn and practice theoretical foundations and fundamental skills of program evaluation.

This course is appropriate for graduate students who are preparing for or are in positions for which accountability of programming is expected, such as externally funded projects, school programs, informal education activities, human services and programs in higher education settings. The course aims to produce informed stakeholders of program evaluations and to develop initial understandings and skills for those professionally interested in evaluation. The course will facilitate students' learning the answers to such questions as:

What is evaluation and why is it important in this age of accountability? What theories inform evaluation perspectives? What are logic models and how do they inform evaluation? What are the common evaluation designs and methods? How do evaluators practice their profession?

Prerequisite: EDCEP 816 or equivalent.

IMPACT: Since a program evaluation course is available in the College of Human Ecology, FSHS 893, Program Evaluation in Human Services, support for the proposed course was obtained from Dr. MacDonald (see attached email).

RATIONALE: This course has been taught several times and is now developed into an on-line course to accommodate the needs of the distance students in the College of Education. The course has a strong theoretical and methodological basis which is the foundation for a rapidly growing set of skills and knowledge for evaluation programs in schools, communities, and institutions. Most externally funded projects and programs require program evaluation and it is a growing profession. Education and human service practitioners need to know the

fundamentals of evaluation to be good consumers of evaluation and to utilize evaluation for program improvement or accountability.

EFFECTIVE DATE: Fall 2013

EDCI 920. <u>Narrative Inquiry in Education</u>. (3) <u>Every other fall in even years</u>. This course examines theoretical underpinnings of narrative inquiry, narrative analysis, narrative data collection, narrative writing, and contemporary narrative research issues in education. Pre-Requisite: <u>EDLEA 838</u>: <u>Qualitative Research in Education</u>.

IMPACT: None

RATIONALE: EDCI 886, Seminar in Curriculum and Instruction has been offered as a topics course on narrative inquiry since 2009 once every other fall. This course serves as an advanced qualitative research methodology course and can serve to meet a research requirement for doctoral students in Curriculum and Instruction. Thus, there is sufficient demand for this course to be offered on a regular basis with a regular course number and course title for Narrative Inquiry in Education.

EFFECTIVE DATE: Fall 2013

ANTH 650 – Anthropology of the Future: Apocalypse, Prophecy, and Hope. (3) I. This seminar course will explore culturally constructed notion of "the future" by exploring discourses of time, divination, utopia, prophecy, world-ending and world-renewals from various societies around the world. Pr.: ANTH 200, 204 or 210. K-State 8: Global Issues and Perspectives; Human Diversity within the US.

RATIONALE: This course bolsters our cultural anthropology offerings in line with student interests and faculty specialization. As a course focused on various aspects of futurity and temporality, the course adds a whole new subject field to our program. Also, the course is substantially concerned with religious beliefs and practices, a topic which is currently under-represented at K-State. Since the College of Arts and Sciences does not have a department of religious studies, we can use as many additional offerings on religious cultures as possible. The course addresses both Western and Eastern traditions of divination, eschatology and oracles, in addition to other cultural insights on future-orientation. This course has been offered as a special topics course ANTH 522 and has consistently had good enrollment.

K-State 8 RATIONALE: The course looks at futurity from the perspective of multiple American and international subcultures (religious, political, etcetera).

IMPACT: None

- AP 822. Advanced Muscle Physiology. (3) II. Course will examine current topics in muscle physiology. Format to include discussion of scientific papers, oral presentations, and debate of controversial topics. Pr.: KIN 335 or permission of instructor
- **RATIONALE:** This course contributes to the M.S. and proposed Ph.D. in Kinesiology. We are transitioning courses that were previously taught under different sections of KIN 796 Topics to a stand-alone graduate course number. This course has been taught several

years in the past and has been included on programs of study of students conducting research in exercise physiology.

Impact (i.e. if this impacts another college/unit): Course will be co-listed in Kinesiology as KIN 822.

EFFECTIVE DATE: Spring 2014

- AP 824. Physiology of Oxygen Transport. (3) II. This course is designed to promote critical reading of the literature, particularly with respect to the understanding of exercise physiology and cardiorespiratory, vascular and muscle energetics responses. Activities will include presenting papers, debate and discussion regarding all aspects of science and scientific philosophy. Pr.: KIN 335 or permission of instructor
- **RATIONALE:** This course contributes to the M.S. and proposed Ph.D. in Kinesiology. We are transitioning courses that were previously taught under different sections of KIN 796 Topics to a stand-alone graduate course number. This course has been taught several years in the past and has been included on programs of study of students conducting research in exercise physiology

Impact (i.e. if this impacts another college/unit): Course will be co-listed in Kinesiology as KIN 824.

EFFECTIVE DATE: Spring 2014

- AP 826. Advanced Cardiovascular Physiology. (3) I. Discussion and critical examination of cardiovascular control mechanisms, with specific emphasis on regulation of blood pressure during severe challenges such as exercise, heat stress, and upright posture. Pr.: KIN 335 or permission of instructor
- **RATIONALE:** This course contributes to the M.S. and proposed Ph.D. in Kinesiology. We are transitioning courses that were previously taught under different sections of KIN 796 Topics to a stand-alone graduate course number. This course has been taught several years in the past and has been included on programs of study of students conducting research in exercise physiology.

Impact (i.e. if this impacts another college/unit): Course will be co-listed in Kinesiology as KIN 826.

EFFECTIVE DATE: Fall 2013

CS 794. Advanced Concepts in Veterinary Clinical Anesthesia. (1) II. The lectures will be divided among topics to enhance student preparation for practical clinical application of anesthetic principles in both small and large animal environments. Topics: anesthetic

implications for certain disease states, management of intraoperative complications, and special topics in large animal anesthesia. Pr: CS 729 Veterinary Surgery I and third-year standing in the College of Veterinary Medicine

RATIONALE: The introductory anesthesia course (given as part of AP 770 Pharmacology, CS 729 Veterinary Surgery I and CS 730 Veterinary Surgery II) covers pharmacology of anesthetic drugs, anesthetic equipment and basic monitoring and intraoperative management of small animal patients in the fall semester. There are two equine anesthesia lectures and one food animal anesthesia lecture in the spring semester (CS 730). The proposed elective course is designed to enhance student preparation for practical clinical application of anesthetic principles in both small and large animal environments. Lectures are designed to cover concepts of anesthesia for patients with common complications or disease processes such as cardiac, renal or hepatic disease. Expansion of topics related to large animal anesthesia will be possible. We will be able to more thoroughly address concepts of perioperative fluid therapy, and intraoperative management of common problems such as hypotension, hypoventilation and hypoxemia so that students are better equipped to respond to emergencies in clinical practice.

Impact (i.e. if this impacts another college/unit): None

EFFECTIVE DATE: Spring 2014

Non-expedited Course Changes

- FROM: ECON 630 Introduction to Econometrics. (3) II. An introduction to the analytical and quantitative methods used in economics. Applications to specific problems with an emphasis on computer analyses. Pr.: ECON 120; Math 205 or 220, STAT 351, 511 or 705. K-State 8: Empirical and Quantitative Reasoning; Social Sciences.
- TO: ECON 630 Introduction to Econometrics. (3) II. An introduction to the analytical and quantitative methods used in economics. Applications to specific problems with an emphasis on computer analyses. Pr.: ECON 120 or AGEC 120 or 121; Math 205 or 220, STAT 351, 511 or 705. K-State 8: Empirical and Quantitative Reasoning; Social Sciences.
- **RATIONALE:** Course Catalog needs to be updated to allow both AGEC 120 and AGEC 121 as a prerequisite equal to Econ 120.
- **IMPACT:** None

EFFECTIVE DATE: Fall 2013

FROM: ECON 631 – Principles of Transportation. (3) I. Examines the transportation market from the shipper's point of view by examining the impact of transportation on business firm decisions such as location, markets, and prices. Also covers the costs, prices, and service

characteristics of railroads, motor carries, water carriers, oil pipelines and airlines. The role and impact of government in the transportation market is examined from both a promotion and regulation perspective. Pr.: ECON 120 or AGEC 120. K-State 8: Social Sciences.

- TO: ECON 631 Principles of Transportation. (3) I. Examines the transportation market from the shipper's point of view by examining the impact of transportation on business firm decisions such as location, markets, and prices. Also covers the costs, prices, and service characteristics of railroads, motor carries, water carriers, oil pipelines and airlines. The role and impact of government in the transportation market is examined from both a promotion and regulation perspective. Pr.: ECON 120 or AGEC 120 or AGEC 121. K-State 8: Social Sciences.
- **RATIONALE:** Course Catalog needs to be updated to allow both AGEC 120 and AGEC 121 as a prerequisite equal to Econ 120.
- **IMPACT:** None

EFFECTIVE DATE: Fall 2013

- FROM: ECON 640 Industrial Organization and Public Policy. (3) Other, some Spring. An examination of measures and determinants of industrial concentration, and an analysis of market structure, conduct, and performance, and policies related to performance. Pr.: ECON 120. K-State 8: Empirical and Quantitative Reasoning; Social Sciences.
- TO: ECON 640 Industrial Organization and Public Policy. (3) Other, some Spring. An examination of measures and determinants of industrial concentration, and an analysis of market structure, conduct, and performance, and policies related to performance. Pr.: ECON 120 or AGEC 120 or AGEC 121. K-State 8: Empirical and Quantitative Reasoning; Social Sciences.
- **RATIONALE:** Course Catalog needs to be updated to allow both AGEC 120 and AGEC 121 as a prerequisite equal to Econ 120.
- **IMPACT:** None

EFFECTIVE DATE: Fall 2013

FROM: ECON 681 – International Economics. (3) I, II, Some Summers. Principles of international trade and finance, including production, exchange, commercial policy, resource movements, balance of payments, foreign currency markets, and policies for internal and external balance. Pr.: ECON 110; ECON 120 or AGEC 120. K-State 8: Global Issues and Perspectives; Social Science.

- TO: ECON 681 International Economics. (3) I, II, Some Summers. Principles of international trade and finance, including production, exchange, commercial policy, resource movements, balance of payments, foreign currency markets, and policies for internal and external balance. Pr.: ECON 110; ECON 120 or AGEC 120 or AGEC 121. K-State 8: Global Issues and Perspectives; Social Science.
- **RATIONALE:** Course Catalog needs to be updated to allow both AGEC 120 and AGEC 121 as a prerequisite equal to Econ 120.
- IMPACT: None

EFFECTIVE DATE: Fall 2013

- **FROM:** ECON 686 Business Fluctuations and Forecasting. (3) Some Fall. Types of business fluctuations; measurement of business cycles; theories of the causes of business cycles; proposals for stabilizing business activity; techniques of forecasting business activity. Pr.: ECON 110; ECON 120 or AGEC 120. K-State 8: Empirical and Quantitative Reasoning; Social Sciences.
- TO: ECON 686 Business Fluctuations and Forecasting. (3) Some Fall. Types of business fluctuations; measurement of business cycles; theories of the causes of business cycles; proposals for stabilizing business activity; techniques of forecasting business activity. Pr.: ECON 110; ECON 120 or AGEC 120 or AGEC 121. K-State 8: Empirical and Quantitative Reasoning; Social Sciences.
- **RATIONALE:** Course Catalog needs to be updated to allow both AGEC 120 and AGEC 121 as a prerequisite equal to ECON 120.
- IMPACT: None

- **FROM:** ECON 688 Health Economics. (3) I, Odd years. This course applies the tools of microeconomics to the health-care sector. It analyzes the behavior of consumers and providers of medical care, the functioning of insurance markets, and the role of government and the private sector. International comparisons are made. Pr.: ECON 120. K-State 8: Social Science.
- **TO: ECON 688** Health Economics. (3) I, Odd years. This course applies the tools of microeconomics to the health-care sector. It analyzes the behavior of consumers and providers of medical care, the functioning of insurance markets, and the role of government and the private

sector. International comparisons are made. Pr.: ECON 120 or AGEC 120 or AGEC 121. K-State 8: Social Science.

- **RATIONALE:** Course Catalog needs to be updated to allow both AGEC 120 and AGEC 121 as a prerequisite equal to ECON 120.
- **IMPACT:** None

EFFECTIVE DATE: Fall 2013

- **FROM:** ECON 699 Seminar in Economics. (1-3) On sufficient demand. Seminars of special interest will be offered on demand. Pr.: ECON 120.
- **TO:** ECON 699 Seminar in Economics. (1-3) On sufficient demand. Seminars of special interest will be offered on demand. Pr.: ECON 120 or AGEC 120 or AGEC 121.
- **RATIONALE:** Course Catalog needs to be updated to allow both AGEC 120 and AGEC 121 as a prerequisite equal to ECON 120.
- **IMPACT:** None
- **EFFECTIVE DATE:** Fall 2013
- **FROM:** MUSIC 559 Techniques of Music Technology. (2) I, II. Students develop skills of notation, scanning, manipulating, sequencing, and recording necessary to integrate digital technologies into the practice of music making and teaching.
- **TO:** <u>MUSIC 759</u> Techniques of Music Technology. (2) <u>S</u>. Students develop skills of notation, scanning, manipulating, sequencing, and recording necessary to integrate digital technologies into the practice of music making and teaching.
- **RATIONALE:** Although originally developed to provide undergraduate technology training, this course has never been used for that purpose. Once we recognized the course is more appropriate for graduate level education, we have been providing this course as a MUSIC 799 for the summer graduate program. The content has been redesigned for graduate study upon the first use of this course. With a limit on 799 numbers on a program of study, this change is to provide this graduate course with a useful graduate number to fit into current use of the course. This course has never been used as an undergraduate course.
- **IMPACT:** NONE

- **FROM:** STAT 703 Statistical Methods for Natural Sciences. (3) I, II, S. Statistical concepts and methods basic to experimental research in the natural sciences; hypothetical populations; estimation of parameters; confidence intervals; parametric and nonparametric tests of hypotheses; linear regression; correlation; one-way analysis of variance; t-test; chi-square test. Pr.: Junior standing and equivalent of college algebra.
- TO: STAT 703 Introduction to Statistical Methods for the Sciences. (3) I, II, S. Statistical concepts and methods applied to experimental and survey research in the sciences; tests of hypotheses, parametric and rank tests; point estimation and confidence intervals; linear regression; correlation; one-way analysis of variance; contingency tables, chi-square tests. Pr.: Junior standing and equivalent of college algebra.

RATIONALE: Given the considerable, if not nearly complete, overlap of content in the current STAT 702 (Statistical Methods for Social Sciences) and STAT 703, it is proposed to merge the two courses into a single course providing a graduate level introduction to statistical methodology for the sciences. The merged course would retain the subject/number STAT 703 with minor re-titling and minimal changes to the course description. Along with this change, a drop is being submitted for STAT 702, reflecting the merger. The design of the merged course will satisfy the needs of all enrollees, including enrollment availability, and provide a more uniform pre-requisite background for those students who take follow-up 700-level Statistics courses. With the growing importance of statistics to research across many fields, it is expected that the demand for statistics education will continue to expand. With the department's current resources combined with the directions of K-State 2025, we are thus considering ways to improve the efficiency whit which our courses are delivered to the campus community while maintaining or even improving teaching effectiveness. The merger of STAT 702 and 703 is an example of such considerations.

IMPACT: The following undergraduate and graduate programs will be impacted since either/or STAT 702 and STAT 703 are required in their curriculum: Psychology, Economics, Apparel and Textiles, Human Ecology, Environmental Design and Planning, Journalism and Mass Communications, Kinesiology, Mathematics, Open Option, Social Work, Mathematics, Food Service and Hospitality, Human Nutrition, Business Administration, Horticulture, Civil Engineering, Agronomy, Horticulture, Plant Pathology, Geology, Chemical Engineering, Nuclear Engineering, Architectural Engineering, Biological and Agricultural Engineering, Fisheries and Wildlife, Nondegree, Food Science, Entomology, Agricultural Economics, Grain Science, Geography, Chemistry, Biochemistry, Computer Science, Public Health, Pathobiology, Biomedical Science, and Animal Science and Industry. Email correspondence was sent to all these programs on November 5 with a follow-up email to non-responding department heads on December 7, 2012. Of those 19 program responding no one indicated a negative impact of the change.

FROM	ТО
STAT 713 – Applied Linear Statistical Models. (4)	STAT 713 – Applied Linear Statistical Models. (3)
I. Matrix-based regression and analysis of variance	I Matrix-based regression and analysis of
procedures at a mathematical level appropriate for	variance procedures at a mathematical level
a first-year graduate statistic major. Topics include	appropriate for a first-year graduate statistic major.
simple linear regression, linear models in matrix	Topics include simple linear regression, linear
form, multiple linear regression, model building	models in matrix form, multiple linear regression,
and diagnostics, analysis of covariance, multiple	model building and diagnostics, analysis of
comparison methods, contrasts, multifactor studies,	covariance, multiple comparison methods,
blocking, sub-sampling, and split-plot designs. Pr.:	contrasts, multifactor studies. Pr.: Prior knowledge
Prior knowledge of matrix or linear algebra and one	of matrix or linear algebra and one prior course in
prior course in statistics. A student may not receive	statistics. A student may not receive credit for both
credit for both STAT 704/705 sequence and STAT	STAT 704/705 sequence and STAT 713.
713.	-

RATIONALE: TOPICS including blocking, sub-sampling and split-plot designs are taught in STAT 720. Accordingly, it is proposed to delete this material from STAT 713 and reduce the credit hours from 4 to 3. In addition to removing duplication, the change will allow students additional time to process the remaining important topics in listed in the course description for STAT 713. IMPACT: None

IMPACI.	none	
EFFECTIVE DATE:		Fall 2013

FROM	ТО
STAT 726 – Introduction to Splus/R Computing.	STAT 726 – Introduction to Splus/R Computing.
(1) H. Topics may include basic environment and	(1) <u>I.</u> Topics may include basic environment and
syntax, reading and importing data from files, data	syntax, reading and importing data from files, data
manipulation, basic graphics, and built-in and user-	manipulation, basic graphics, and built-in and user-
defined functions. Pr.: One graduate-level course	defined functions. Pr.: One graduate-level course
in statistics.	in statistics.

RATIONALE: STAT 726, along with STAT 725, cover two major software packages (R and SAS, respectively) used in statistical instruction and research. In order to acquaint students early in their program of study, it is proposed that both STAT 725 and 726 be taught consecutively (one 5-week period after the other, as each are 1 credit hour classes) every fall. Additionally, one faculty member will teach both classes during the fall semester and such will constitute one course in the faculty member's teaching load.

IMPACT:NoneEFFECTIVE DATE:Fall 2013

From: MANGT 620 Social Entrepreneurship Credits: (3) I.

Social entrepreneurship is one of the fastest growing disciplines to emerge in management and is increasingly getting recognition as an important policy strategy at the national level. It is concerned with how to engage the talents and tools of professional entrepreneurship to address critical social needs both within and beyond the market. Social entrepreneurship is situated within a framework of social institutions, organizations, and entrepreneurial change in response to human and citizen rights and needs. The relevant social institutions include government, the market, education, philanthropy, and the family. Organizations may be for profit or non-profit, but all organizations, regardless of their legal structure, are seen to have a social purpose. Several non-market venues for sustainable social change will be examined in addition to the traditional

delivery of goods and services through the market. The course provides a number of crucial tools and resources that may better orient and equip the prospective social entrepreneur to identify and act on opportunities.

To: <u>ENTRP 520</u> Social Entrepreneurship Credits: (3) I.

Social entrepreneurship is one of the fastest growing disciplines to emerge in management and is increasingly getting recognition as an important policy strategy at the national level. It is concerned with how to engage the talents and tools of professional entrepreneurship to address critical social needs both within and beyond the market. Social entrepreneurship is situated within a framework of social institutions, organizations, and entrepreneurial change in response to human and citizen rights and needs. The relevant social institutions include government, the market, education, philanthropy, and the family. Organizations may be for profit or non-profit, but all organizations, regardless of their legal structure, are seen to have a social purpose. Several non-market venues for sustainable social change will be examined in addition to the traditional delivery of goods and services through the market. The course provides a number of crucial tools and resources that may better orient and equip the prospective social entrepreneur to identify and act on opportunities.

Rationale: This course is a required course for the entrepreneurship major and the prefix is being changed to help identify it as a course in the major also graduate students rarely take this course and changing it to a 500-level course provides necessary resource flexibility to cover this course.

Impact on Other Units: None

Effective Date: Fall 2013

From: MANGT 686 Systems Administration Credits: (3) II.

Study of the interrelationship of organizational information systems and how these systems support managerial decision making. The analytical/ programming tools used to perform the systems administration function will be implemented through a term project. Prerequisite: MANGT 570, 576, 656, and 666.

To: MANGT 686 Systems Administration Credits: (3) II or on sufficient demand.

Study of the interrelationship of organizational information systems and how these systems support managerial decision making. The analytical/ programming tools used to perform the systems administration function will be implemented through a term project.
Prerequisite: MANGT 570, <u>MANGT 576 or MANGT 665</u>, 656, and 666.

Rationale: Adding MANGT 665 Business Analytics and Data Mining as a prerequisite will provide a stronger base for MIS students.

Impact on Other Units: None

Effective Date: Fall 2013

Change: CIS 543 Software Engineering Design Project (3). Current practices of software development, requirements, design, prototyping, measures and evaluations. Specification, design, and prototyping of a software system.

Note

Not available for credit to students with credit in CIS 540.

Requisites

Prerequisite: CIS 308, 501, and STAT 325 or 510. Students may enroll in CIS courses only if they have earned a grade of C or better for each prerequisite to those courses.

When Offered: Fall

To: CIS <u>641</u> - Software Engineering Design Project (3). Current practices of software development, requirements, design, prototyping, measures and evaluations. Specification, design, and prototyping of a software system.

Note

Not available for credit to students with credit in CIS 642.

Requisites

Prerequisite: CIS 308, 501, and STAT 325 or 510. Students may enroll in CIS courses only if they have earned a grade of C or better for each prerequisite to those courses.

When Offered: Fall

Rationale: This course is equivalent to CIS 540, except that it is a one-semester course rather than the first half of a two-semester course. In order to allow students to take this alternative for graduate credit, we are raising the level of this course as well.

Effective: Fall 2013

Impact: None

Change: CIS 540 - Software Engineering Project I (3). The first semester of a two-semester capstone course. Current practices of software development, requirements, design, prototyping, measures and evaluation. Specification, design, and prototyping of a software system.

Note

Not available for credit to students with credit in CIS 543.

Requisites

Prerequisite: CIS 308, 501, and STAT 325 or 510. Students may enroll in CIS courses only if they have earned a grade of C or better for each prerequisite to those courses.

When Offered: Fall

To: CIS <u>642</u> - Software Engineering Project I (3). The first semester of a two-semester capstone course. Current practices of software development, requirements, design, prototyping, measures

and evaluation. Specification, design, and prototyping of a software system.

Note

Not available for credit to students with credit in CIS 641.

Requisites

Prerequisite: CIS 308, 501, and STAT 325 or 510. Students may enroll in CIS courses only if they have earned a grade of C or better for each prerequisite to those courses.

When Offered: Fall

Rationale: This course or an equivalent is required background for our MS in Computer Science. Currently, if our MS students lack this background, they are assigned either this course or CIS 543 as a deficiency. However, the CS Option of our BS in CS does not require this course. Because we would like for our CS Option to prepare students for our MS with no deficiencies, and because the workload of this course is comparable to other 600-level courses, we propose to raise the level of this course, its second-semester continuation CIS 541, and its single-semester equivalent CIS 543 so that the required material can be included for graduate credit on an MS Program of Study.

Effective: Fall 2013.

Impact: None.

Change: CIS 541 - Software Engineering Project II. (3) Continuation of CIS 540. Final implementation, integration, and testing of a software system. Introduction to configuration management, project management, and software maintenance.

Requisites

Prerequisite: CIS 540 (which must be taken in the preceding semester). Students may enroll in CIS courses only if they have earned a grade of C or better for each prerequisite to those courses.

When Offered: Spring

To: CIS <u>643</u> - Software Engineering Project II. (3) Continuation of CIS <u>642</u>. Final implementation, integration, and testing of a software system. Introduction to configuration management, project management, and software maintenance.

Requisites

Prerequisite: CIS $\underline{642}$ (which must be taken in the preceding semester). Students may enroll in CIS courses only if they have earned a grade of C or better for each prerequisite to those courses.

When Offered: Spring
Rationale: Because we are changing the level of CIS 540, we also need to change the level of this course, its continuation.

Effective: Fall 2013.

Impact: None.

- CHANGE: DMP 854. Intermediate Epidemiology. (3) II. Epidemiologic principles of disease with a focus on measures of disease occurrence, association and impact, determinants of disease diagnostic test evaluation, study design and critical literature evaluation. Pr.: DMP 708 or DMP 754 or equivalent AND STAT 703 or DMP 830 or equivalent
- TO: DMP 854. Intermediate Epidemiology. (3) II. Epidemiologic principles of disease with a focus on measures of disease occurrence, association and impact, determinants of disease diagnostic test evaluation, study design and critical literature evaluation. Pr.: DMP 708 or DMP 754 or equivalent AND <u>STAT 701 or</u> STAT 703 or DMP 830 or equivalent
- **RATIONALE:** We are going to have more and more of our MPH students who have not had STAT 703, as we move forward and grow the MPH program. STAT 701 is a new grad level STAT class (biostatistics) that is an acceptable pre-req we would like to add. Since this will affect the college of Arts and Sciences it will be a Non-Expedited Change

Impact (i.e. if this impacts another college/unit): Arts and Sciences, Statistics

EFFECTIVE DATE: Spring 2014

Non-Expedited Course Drops

- **STAT 702 Statistical Methods for the Social Sciences**. (3) I, II. Statistical methods applied to experimental and survey data from social sciences; tests of hypotheses concerning treatment means; linear regression; product-moment, rank, and bi-serial correlations; contingency tables and chi-square tests.
- **RATIONALE:** STAT 702 is being dropped due to the considerable, if not nearly complete, overlap of content in the current STAT 702 and STAT 703 (Statistical Methods for Natural Sciences). Along with this drop, a change is being submitted for STAT 703 which will indicate a nominal change in title and course description, essentially reflecting a merger of STAT 702 and 703 which will well serve both constituencies. Additionally, the merger will allow better use of limited department resources while maintaining or even improving teaching effectiveness and accommodating a growing need for statistics education at K-State.
- **IMPACT:** The following undergraduate and graduate programs will be impacted since either/or STAT 702 and STAT 703 are required in their curriculum: Psychology, Economics,

Apparel and Textiles, Human Ecology, Environmental Design and Planning, Journalism and Mass Communications, Kinesiology, Mathematics, Open Option, Social Work, Mathematics, Food Service and Hospitality, Human Nutrition, Business Administration, Horticulture, Civil Engineering, Agronomy, Horticulture, Plant Pathology, Geology, Chemical Engineering, Nuclear Engineering, Architectural Engineering, Biological and Agricultural Engineering, Fisheries and Wildlife, Nondegree, Food Science, Entomology, Agricultural Economics, Grain Science, Geography, Chemistry, Biochemistry, Computer Science, Public Health, Pathobiology, Biomedical Science, and Animal Science and Industry. Email correspondence was sent to all these programs on November 5 with a follow-up email to non-responding department heads on December 7, 2012. Of those 19 programs responding no one indicated a negative impact of the change.

EFFECTIVE DATE: Fall 2013

Non-Expedited Curriculum Changes

Graduate Certificate in Technical Writing and Professional Communication

FROM: TO	D:
Writing	Writing
Students choose one from the following:	Students choose one from the following:
ENGL 510 - Introduction to Professional Writing Credits: (3)	ENGL 510 - Introduction to Professional Writing Credits: (3)
ENGL 759 - Studies in Technical Communication	ENGL 759 - Studies in Technical Communication
AGCOM 810 - Scientific Communication Credits: (3) Related Electives	AGCOM 810 - Scientific Communication Credits: (3) Related Electives
Students shares three from the fallowing	Students shares three from the fallowing
Students choose three from the following: (Students can petition to use additional courses as	Students choose three from the following: (Students can petition to use additional courses as
electives by discussing with the Certificate Director,	electives by discussing with the Certificate Director,
preferably before they take the course, and by	preferably before they take the course, and by
demonstrating that course meets Certificate SLOs)	demonstrating that course meets Certificate SLOs)
AGCOM 590 - New Media Technology Credits: (3)	AGCOM 590 - New Media Technology Credits: (3)
AGCOM 610 - Crisis Communication Credits: (3)	AGCOM 610 - Crisis Communication Credits: (3)
AGCOM 712 - Environmental Communication	AGCOM 712 - Environmental Communication Credits:
Credits: (3)	(3)
ART 575 - Web Design Credits: (3)	COMM 526 - Persuasion Credits: (3)
ART 820 - Graduate Graphic Design/Visual	COMM 726 - Seminar in Persuasion Credits: (3)
Communications Credits: (Var.)	COMM 730 - Classical Rhetorical Theory Credits: (3)
ART 601 - Graphic Design History/Theory/Criticism	COMM 733 - Rhetorical Criticism Credits: (3)
$\frac{\text{Credits: } (3)}{(3)}$	COMM /34 - The Rhetoric of Social Movements
COMM 526 - Persuasion Credits: (3)	Credits: (3)
COMM 720 - Seminar in Persuasion Credits: (3)	EDACE /86 - Topics in Adult Education Credits: (1-3)
COMM 732 Photorical Critician Credits: (3)	(Grant writing)
COMM 733 - Knetonical Childishi Cledits. (3)	ENCL 665 Advanced Creative Writing: Nonfiction
Credits: (3)	Credits: (3)
EDACE 786 - Topics in Adult Education Credits: (1-3)	ENGL 685 - Topics in Rhetoric and Composition
(Grant Writing)	Credits: (3)
ENGL 665 - Advanced Creative Writing: Nonfiction	ENGL 753 - Theories of Composition and Rhetoric
Credits: (3)	Credits: (3)
ENGL 685 - Topics in Rhetoric and Composition	ENGL 755 - Studies in Composition and Rhetoric
Credits: (3)	Credits: (3)
ENGL 753 - Theories of Composition and Rhetoric	ENGL 756 - Business Communication Credits: (3)
Credits: (3)	ENGL 758 - Scientific Writing Credits: (3)
ENGL 755 - Studies in Composition and Rhetoric	ENGL 765 - Creative Writing Workshop: Creative
Credits: (3)	Nonfiction Credits: (3)
ENGL 756 - Business Communication Credits: (3)	ENGL 797 - Professional Writing Internship Credits:
ENGL 758 - Scientific Writing Credits: (3)	(Var.)
ENGL 765 - Creative Writing Workshop: Creative	MANGT 520 - Organizational Behavior Credits: (3)

Nonfiction Credits: (3)	MC 712 - Environmental Communications Credits: (3)
ENGL 797 - Professional Writing Internship Credits:	MC 750 - Strategic Health Communication Credits: (3)
(Var.)	MC 760 - Communication and Risk Credits: (3)
MANGT 520 - Organizational Behavior Credits: (3)	MC 765 - Communication Theory Credits: (3)
MC 712 - Environmental Communications Credits: (3)	
MC 750 - Strategic Health Communication Credits: (3)	
MC 760 - Communication and Risk Credits: (3)	
MC 765 - Communication Theory Credits: (3)	

RATIONALE: The Graduate Certificate in Technical Writing and Professional Communication serves students from a variety of disciplines, including English, Communications, Journalism and Mass Communication, Agricultural Communication, Education, and Management. The Department of Art no longer considers ART 575, ART 601, and ART 820 appropriate for students from other disciplines. We would like to withdraw them, therefore, from the Graduate Certificate.

IMPACT: Communication Studies, Art, Journalism and Mass Communication, (College of Arts and Sciences), Communications (College of Agriculture).

EFFECTIVE DATE: Summer 2013

Non-Expedited Curriculum Change – College of Business Administration

MBA Curriculum Changes and Online Professional MBA Program

The purpose of this report is to provide further details related to curriculum changes to the current, face-to-face MBA program and the rollout of the K-State MBA program as a primarily Online MBA designed for working professionals. The program will be branded as a Professional MBA (PMBA).

Curriculum

The following curriculum changes have been approved by the CBA faculty in order to reflect the current state of MBA education:

- One course in finance and accounting would be eliminated and the remaining three courses will be redesigned (non-expedited changes). Eliminate Finance 860. Revised Accounting 810, Accounting 860, Finance 815.
- 2) MANGT 830, Applied Managerial Computing, will be *retitled Information Technology Strategy and Application (expedited change)*.
- 3) MANGT 810, Operations Management and Analysis, will be *retitled Operations Management and Supply Chain Analysis (expedited change).*
- 4) GENBA 890, Business Practicum, will be changed from 4 to 3 hours (expedited change)
- 5) The number of *elective hours required may be reduced by 6 credit hours at the discretion of the admissions committee if a student has three or more years of full-time, professional work experience.* Approval of experience would be made by a committee of graduate faculty members, in coordination with the Program Director based on recommendations by the individual's work supervisor. Evidence of leadership and the expectation that the person will be moving into roles of greater responsibility will be expected.
- 6) **STAT 703 is moved from a program requirement to a prerequisite**.

Professional MBA Program Characteristics

The Professional MBA program will be taught primarily online but with selected (less than 10% of content) faceto-face components offered on the Manhattan campus, as well as other locations where large groups of students cluster. This could include the Olathe campus. This program would be marketed as a high-quality, hightouch online program, consistent with K-State's reputation in the face-to-face market. Three years of professional experience will be required (must be approved by admissions committee), along with similar entrance requirements (3.0 GPA and 500 GMAT) to our face-to-face program. While international admissions will be accepted with approved TOEFL scores, no conditional admissions or admissions requiring language remediation will be accepted. The program would include a **2-day regional orientation.** The orientation would be **required for new students** and optional but encouraged for continuing students. This orientation would include **team building, networking and professional development components**, and would focus on broad business trends as a theme.

To maintain efficiencies with the face-to-face program, the PMBA curriculum would remain aligned with that program, but the online courses would be taught assuming a greater degree of experience (the face-to-face

program does not have an experience requirement). Students from the face-to-face program would be allowed to take the online courses, if they meet this experience requirement.

Assessment processes will be identical to assessment for the current face-to-face program.

In addition, the following changes would be made.

- A new course, *GENBA 800 Professional Development and Learning*, will be added and only will be offered in the online program. This two-credit course will take the place of elective hours and would be *required* of all online students. It would involve meeting with the director of the program and mapping a 90-hour professional development plan to enhance the student experience.
- 2) A new course, *GENBA 875 International Experience*, will be added. This one-credit course will take the place of elective hours and would be *required* of all online students. It will involve participating in an international trip, overseen by a faculty member. 45 hours of professional interaction (or more) would be included in/prior to/following, the 10-14-day experience.

Related Programs

A letter of agreement, addressing competition between programs and treatment of common courses, has been signed with the Master of Agribusiness. Letters of agreement have also been signed with Dietetics and Professional Master of Technology (Salina) regarding required business courses in those programs and continued inclusion of their students in the new online program courses.

MBA/PMBA Curriculum Map

Proposed Face-to-Face MBA - Changes are highlighted		Proposed Online Professional MBA - Differences from Face-to-Face	
		are highlighted	<u> </u>
Prerequisites		Prerequisites	
Either calculus or minimum score on quantitative portion of GMAT		Either calculus or minimum score on quantitative portion of GMAT	
6 hours of economics		6 hours of economics	
Stat 703 - Statistics for Sciences or equivalent preparation (moved from program requirement to prerequisite)		Stat 703 - Statistics for Sciences or equivalent preparation	
	credit hours		credit hours
ECON 815 - Economic Analysis for Business	3	ECON 815 - Economic Analysis for Business	3
ACCTG 810 – Foundations of Accounting and Finance (name change)	3	ACCTG 810 – Foundations of Accounting and Finance (name change)	3
MANGT 820 - Behavioral Management Theory	3	MANGT 820 - Behavioral Management Theory	3
MANGT 830 - Information Technology Strategy and Applications (name change)	3	MANGT 830 - Information Technology Strategy and Applications (name change)	3
MANGT 810 - Operations & Supply Chain Management (name change)	3	MANGT 810 - Operations & Supply Chain Management	3
MKTG 810 - Marketing Concepts and Research	3	MKTG 810 - Marketing Concepts and Research	3
ACCTG 860 - Mangt Acctg and Business Problem Solving	3	ACCTG 860 - Mangt Acctg and Business Problem Solving	3
FINAN 815 - Managerial Finance	3	FINAN 815 - Managerial Finance	3
GENBA 880 - Business Strategy	3	GENBA 880 - Business Strategy	3
MANGT 860 - Mangt of Legal, Ethical and Public Policy Issues	3	MANGT 860 - Mangt of Legal, Ethical and Public Policy Issues	3
FINAN 860 - Managerial Finance II Eliminated			
GENBA 890 - Business Practicum	3	GENBA 890 - Business Practicum	3
International Elective/or Elective if Approved International Trip	3	GENBA 875 - Required International Trip - 45 hours of time on task for 1 credit	1
		GENBA 800 - Professional Development and Learning - Required professional development component. Completed throughout program. 90 clock hours	2
Elective	3	Elective	3
Elective - Eliminated if 3+ years of approved professional experience	3	Eliminated for required 3+ Years of approved professional experience	
Elective - Eliminated if 3+ years of approved professional experience	3	Eliminated for required 3+ Years of approved professional experience	
Total Required	45	Total Required	39
Possible Elimination if 3+ years of approved professional experience	-6		
Maximum reduced based on academic preparation in business	-9	Maximum reduced based on academic preparation in business	-9
Minimum credits for Undergraduate Business Major	30	Minimum credits for Undergraduate Business Major	30

FROM:

TO:

On-Campus Option

The master of business administration (MBA) program is designed to provide professional business education to individuals who wish to pursue a variety of administrative careers in both the private and public sectors. The theme of the curriculum is intrapreneurship which can be defined as an "entrepreneurial attitude and approach to management and problem-solving within any organization, large or small." Throughout the program, the focus is "what one needs to know to run a business" while developing the ability to analyze all types of business situations and propose appropriate, creative and financially sound solutions. The curriculum combines conceptual, analytical and experiential approaches to learning both in and out of the classroom. Once the foundation of basic problem solving tools and knowledge in each functional area is established, the program deepens the interdisciplinary understanding of problem-solving approaches and their functional, ethical, environmental and international ramifications. The program then culminates with a required capstone practicum. This practicum makes the K-State MBA unique in the area, by providing an interdisciplinary, team based consulting-type of experience for all students in their last semester of study.

The MBA curriculum is a 52 credit hour program designed to be completed in two years of full-time study or four years of part-time, typically evening, study.

The master of business administration (MBA) program is designed to provide professional business education to individuals who wish to pursue a variety of administrative careers in both the private and public sectors. The theme of the curriculum is intrapreneurship which can be defined as an "entrepreneurial attitude and approach to management and problem-solving within any organization, large or small." Throughout the program, the focus is "what one needs to know to run a business" while developing the ability to analyze all types of business situations and propose appropriate, creative and financially sound solutions. The curriculum combines conceptual, analytical and experiential approaches to learning both in and out of the classroom. Once the foundation of basic problem solving tools and knowledge in each functional area is established, the program deepens the interdisciplinary understanding of problem-solving approaches and their functional, ethical, environmental and international ramifications. The program then culminates with a required capstone practicum. This practicum makes the K-State MBA unique in the area, by providing an interdisciplinary, consulting-type of experience for all students in their last semester of study.

The requirements of MBA curriculum depend upon the individual's level of prior preparation as follows:

For students with limited or no prior business coursework and less than three years of professional work experience, the MBA curriculum is a <u>45</u> credit hour program designed to be completed in two years of full-time study or four years of part-time, typically evening, study. <u>The program is to include the business</u> core, integrated core and set of electives, as described below.

Students with limited or no prior business coursework but who have three or more years of professional experience, upon approval of the admissions committee are required to complete a total of 39 credit hours, including the business core, integrated core and six elective credit hours, as described below.

Students with significant prior business coursework taken at an AACSB accredited university will be required to complete between 36-45 credit hours depending on the admissions committee's evaluation of their preparation. These classes will include selected courses from the business core, the entire integrated core and set of electives.

Before beginning the MBA coursework, students must acquire basic competency in mathematical analysis,	Students with both significant prior business coursework taken at an AACSB accredited university and three or more years of professional experience, upon approval of the admissions committee ,will be required to complete 30-39 credit hours depending on the admissions committee's evaluation of their preparation. These classes will include selected courses from the business core, the entire integrated core and six hours of elective courses, as described below. Before beginning the MBA coursework, students must acquire basic competency in mathematical analysis,
personal computing and economic theory and analysis. These competencies may be acquired through specific undergraduate course work with the number of courses required depending on the applicant's prior academic work. This basic competency coursework may be taken after admission to the MBA program during the student's first semester.	statistics and economic theory and analysis. These competencies may be acquired through specific undergraduate course work with the number of courses required depending on the applicant's prior academic work. This basic competency coursework may be taken after admission to the MBA program during the student's first semester.
Once admitted, MBA students are responsible for making themselves aware of Graduate School policies and deadlines.	Once admitted, MBA students are responsible for making themselves aware of Graduate School policies and deadlines.
Four components comprise the curriculum:	<u>Three</u> components comprise the curriculum:
Business core (24 credit hours) Advanced core (9 credit hours) Integration Core (7 credit hours) Set of Electives (12 credit hours)	Business core (<u>24</u> credit hours) <u>Integrated</u> Core (<u>9</u> credit hours) Set of Electives (12 credit hours <u>for most students, 6</u> <u>credit hours for students with three or more years of</u> <u>professional business experience and approval of the</u> <u>admissions committee.</u>)
The student may choose to pursue a prespecified, focused Concentration in lieu of the Set of Electives. Students pursuing a masters degree in another field may choose to use 9 credit hours from their other Masters as the Set of Electives in the MBA. Thus, a dual Masters/MBA can be obtained with an additional 43 credit hours.	<u>On-Campus students taking 12 credit hours of electives</u> may choose to pursue a prespecified, focused <u>Area of</u> Concentration <u>as described below</u> in lieu of the Set of Electives. Students pursuing a master degree in another field may choose to use 9 credit hours from their other Masters as Electives in the MBA.
The Integrated Core will be composed of a three credit hour theory component with a four credit hour practicum component. The full time program of study can be completed in 22 months.	
Areas of concentration	Areas of concentration – <u>Available only to on-</u> <u>campus students taking at least 12 credit hours</u> <u>of electives</u>
K-State's MBA offers its students the opportunity to gain general business knowledge as well as develop a focus in a particular area of interest. Concentration areas are available in enterprise information systems, finance,	K-State's MBA offers its students the opportunity to gain general business knowledge as well as develop a focus in a particular area of interest. Concentration areas are available in enterprise information systems, finance,

management, and technology entrepreneurship. Specific courses have been carefully developed to complement one another and best meet the needs of our students. Students wishing to complete specific concentrations will be restricted to designated course work. MBA students may not take a concentration in accounting. Students interested in accounting should enroll in the Master of Accountancy (MAcc) program.

Enterprise information systems

This area of concentration is to teach students how enterprise-wide information systems and key information technologies, such as the Internet, help organizations reinvent their business processes and gather information in support of related key strategic business initiative. Students will get an indepth look at an enterprise-wide information system while focusing on systems design, evaluation and control.

Finance

The finance concentration will allow students to combine the broad MBA education with specific skills necessary to be a successful financial analyst or manager. Students will specialize in controlling the resource investments required to support an enterprise's operating activities, planning and negotiating appropriate financing arrangements to support these investment requirements, and managing the risks inherent in an enterprise's investment and financing activities.

Management

A concentration in management will allow a student to develop their knowledge in human resource management and/or operations management. Courses are offered in a variety of areas of management such as leadership, entrepreneurship, supply chain management, personnel law, etc.

Technology entrepreneurship

The technology entrepreneurship concentration allows graduate students to gain valuable exposure to the innovation and technology commercialization process at Kansas State University through in-class teaching and on-the-job training programs. Students in the concentration focus on the creation and management of innovation in organizations with a particular emphasis on the commercialization of intellectual property. Students with undergraduate degrees in the sciences and engineering are especially encouraged to consider this concentration as part of their programs. management, and technology entrepreneurship. Specific courses have been carefully developed to complement one another and best meet the needs of our students. Students wishing to complete specific concentrations will be restricted to designated course work. MBA students may not take a concentration in accounting. Students interested in accounting should enroll in the Master of Accountancy (MAcc) program.

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Curriculum prerequisite courses:

Curriculum prerequisite courses:

Curriculum Components: (for course descriptions, please see the respective departmental listings) Accounting, Finance, Management, Marketing	Curriculum Components: (for course descriptions, please see the respective departmental listings) Accounting, Finance, Management, Marketing, <u>General</u> <u>Business</u>
Six hours of economics MATH 205 General Calculus and Linear Algebra	Six hours of economics MATH 205 General Calculus and Linear Algebra <u>or</u> <u>evidence of equivalent preparation</u> <u>STAT 703 - Statistical Methods for Natural Scientists</u> <u>Credits: (3) or equivalent preparation</u>
Business core	Business core
24 credit hours; may waive 6-12 credit hours if "B" or better is achieved in the listed undergraduate courses (or equivalent courses from AACSB accredited institutions); learning activities are structured using the Knowledge, Comprehension, Application and Analysis levels of Bloom's Taxonomy.	15-24 credit hours as determined by the admissions committee based on prior business academic preparation. Only courses taken at an AACSB or equivalently accredited university are considered when evaluating prior academic preparation ;
ACCTG 810 - Accounting Concepts and Analysis Credits: (3) ECON 815 - Economic Analysis for Business Credits: (3) FINAN 815 - Managerial Finance I Credits: (3) MANGT 810 - Operations Management and Analysis Credits: (3) MANGT 820 - Behavioral Management Theory Credits: (3) MANGT 830 - Applied Managerial Computing Credits: (3) MKTG 810 - Marketing Concepts and Research Credits: (3) STAT 702 - Statistical Methods for Social Sciences Credits: (3) Advanced core	ACCTG 810 - Foundations of Accounting and Finance Credits: (3) ECON 815 - Economic Analysis for Business Credits: (3) FINAN 815 - Corporate Finance Credits: (3) MANGT 810 - Operations & Supply Chain Management Credits: (3) MANGT 820 - Behavioral Management Theory Credits: (3) MANGT 830 - Information Technology Strategy and Application Credits: (3) MKTG 810 - Marketing Concepts and Research Credits: (3) ACCTG 860 - Management Accounting and Business Problem Solving Credits: (3)
9 credit hours; the prerequisite for each of these courses is the successful completion of all of the curriculum prerequisites and the Business Core courses; learning activities are structured using the Application, Analysis and Synthesis levels of Bloom's Taxonomy.	
Problem Solving Credits: (3) FINAN 860 - Managerial Finance II Credits: (3) MANGT 860 - Management of Legal, Ethical, and Public Policy Issues Credits: (3)	
Integrated core	Integrated core
7 credit hours ; the prerequisite for each of these courses is successful completion of all the Advanced Core courses; GENBA 890 will be team planned and taught with graduate faculty from each of the four departmental/functional areas; learning activities are structured using the Analysis, Synthesis and Evaluation	9 credit hours
levels of Bloom's Taxonomy.	MANGT 860 - Management of Legal, Ethical, and

GENBA 880 - Business Strategy Credits: (3) GENBA 890 - Business Practicum Credits: (4)	Public Policy Issues Credits: (3) GENBA 880 - Business Strategy Credits: (3) GENBA 890 - Business Practicum Credits: (<u>3</u>)
Electives/concentration	Electives/concentration
12 credit hours; with at least two 800-level courses, with the remainder to be composed of 600-level (and above) courses from any college, with the approval from the student's advisory committee. A limited number of business concentrations will be available.	12 credit hours; with at least two 800-level courses, with the remainder to be composed of 600-level (and above) courses from any college, with the approval from the student's advisory committee. <u>One elective course must have an international component.</u>
Total (52 credit hours)	
Typical course of study Fall semester I (12 credit hours)	
— ACCTG 810—Accounting Concepts and Analysis Credits: (3)	
MANGT 820 Behavioral Management Theory	
- MANGT 830 - Applied Managerial Computing	
Credits: (3) — STAT 702—Statistical Methods for Social Sciences	
Credits: (3)	
Spring semester I (12 credit hours)	
ECON 815 Economic Analysis for Business Credits:	
(5) — FINAN 815 - Managerial Finance I Credits: (3) — MANGT 810 – Operations Management and Analysis Credits: (3) — MKTG 810 - Marketing Concepts and Research Credits: (3)	
Summer semester I (3 credit hours)	
- Optional elective internship or study abroad	
Fall semester II (12 credit hours)	
- International elective	
 ACCTG 860 Management Accounting and Business Problem Solving Credits: (3) FINAN 860 Managerial Finance II Credits: (3) GENBA 880 Business Strategy Credits: (3) 	
Spring semester II (10-13 credit hours)	
<u>— 2 to 3 electives</u>	
 GENBA 890 Business Practicum Credits: (4) MANGT 860 Management of Legal, Ethical, and Public Policy Issues Credits: (3) 	
• • • • • • • • • • • • • • • • • • • •	Online Professional MBA Option

The MBA program is also offered in an online format.
currently in developing leadership roles in their
organizations. Students must have three or more years
of full-time, professional work experience approved by the admissions committee, in addition to meeting other
admissions requirements for the MBA program.
<u>Coursework is the same as the campus program.</u> <u>described above, with the following exceptions.</u>
Students are required to attend a face-to-face orientation at the beginning of their program, and are encouraged to attend at least once per year during their time of enrollment.
Students should take GENBA 875 (1 credit) International Business Experience and GENBA 800 (2 credits) Professional Development and one three-hour elective course offered for graduate credit in place of the six hours of electives that would be required of them in the campus program. No Areas of Concentration are offered.
Thus, the details of the online curriculum are as follows.
The requirements of Online PMBA curriculum depend upon the individual's level of prior business preparation as follows:
Students with limited or no prior business
Students with limited or no prior business coursework are required to complete a total of 39
Students with limited or no prior business coursework are required to complete a total of 39 credit hours, including the business core, integrated core and six elective credit hours, as described below.
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Students with limited or no prior business coursework are required to complete a total of 39 credit hours, including the business core, integrated core and six elective credit hours, as described below. Students with significant prior business coursework taken at an AACSB accredited university will be required to complete 30-39 credit hours depending on
Students with limited or no prior business coursework are required to complete a total of 39 credit hours, including the business core, integrated core and six elective credit hours, as described below. Students with significant prior business coursework taken at an AACSB accredited university will be required to complete 30-39 credit hours depending on the admissions committee's evaluation of their
Students with limited or no prior business coursework are required to complete a total of 39 credit hours, including the business core, integrated core and six elective credit hours, as described below.Students with significant prior business coursework taken at an AACSB accredited university will be required to complete 30-39 credit hours depending on the admissions committee's evaluation of their preparation. These classes will include selected courses from the business course, as described below.
Students with limited or no prior business coursework are required to complete a total of 39 credit hours, including the business core, integrated core and six elective credit hours, as described below.Students with significant prior business coursework taken at an AACSB accredited university will be required to complete 30-39 credit hours depending on the admissions committee's evaluation of their preparation. These classes will include selected courses from the business core, the entire integrated core and six hours of elective courses, as described below.Before beginning the MBA coursework, students must acquire basic competency in mathematical analysis, statistics and economic theory and analysis. These competencies may be acquired through specific undergraduate course work with the number of courses required depending on the applicant's prior academic work. This basic competency coursework may be taken after admission to the MBA program during the student's first year.
Students with limited or no prior business coursework are required to complete a total of 39 credit hours, including the business core, integrated core and six elective credit hours, as described below.Students with significant prior business coursework taken at an AACSB accredited university will be required to complete 30-39 credit hours depending on the admissions committee's evaluation of their preparation. These classes will include selected courses from the business core, the entire integrated core and six hours of elective courses, as described below.Before beginning the MBA coursework, students must acquire basic competency in mathematical analysis, statistics and economic theory and analysis. These competencies may be acquired through specific undergraduate course work with the number of courses required depending on the applicant's prior academic work. This basic competency coursework may be taken after admission to the MBA program during the student's first year.Once admitted, MBA students are responsible for making themselves aware of Graduate School policies and deadlines.

Business core (24 credit hours) Integrated Core (15 credit hours)
Curriculum prerequisite courses:
Curriculum Components: (for course descriptions, please see the respective departmental listings) Accounting, Finance, Management, Marketing, and General Business
<u>Six hours of economics</u> <u>MATH 205 General Calculus and Linear Algebra or</u> <u>evidence of equivalent preparation</u> <u>STAT 703 - Statistical Methods for Natural Scientists</u> <u>Credits: (3) or equivalent preparation</u>
Business core
15-24 credit hours as determined by the admissions committee based on prior business academic preparation. Only courses taken at an AACSB or equivalently accredited university are considered when evaluating prior academic preparation :
ACCTG 810 - Foundations of Accounting and Finance Credits: (3) ECON 815 - Economic Analysis for Business Credits: (3) FINAN 815 - Corporate Finance Credits: (3) MANGT 810 - Operations & Supply Chain Management Credits: (3) MANGT 820 - Behavioral Management Theory Credits: (3) MANGT 830 - Information Technology Strategy and Application Credits: (3) MKTG 810 - Marketing Concepts and Research Credits: (3) ACCTG 860 - Management Accounting and Business Problem Solving Credits: (3)
Integrated core
15 credit hours
MANGT 860 - Management of Legal, Ethical, and Public Policy Issues Credits: (3) GENBA 880 - Business Strategy Credits: (3) GENBA 890 - Business Practicum Credits: (3) GENBA 875 International Business Experience Credits (1) GENBA 800 Professional Development Credits (2) Elective Credits (3) Students should complete one course of their choosing, taught at the graduate level as an elective.