

Attachment 1
Consent Agenda Information – Academic Affairs

Human Ecology (3-23-11):

Pages 2-14

Agriculture (3-28-11)

Pages 15-18

Arts & Sciences (4-7-11)

Pages 19-35

Engineering (4-7-11)

Pages 36-75

Graduate Course Additions (3-1 & 4-5-11)

Pages 76-77

COLLEGE OF HUMAN ECOLOGY (Approved 3-23-11)

Department of General Human Ecology

ADD NEW COURSE

DHE 300 Conducting Honors Research

Credits: (1)

This one credit seminar provides an overview of the process of conducting an honors project, which could be undergraduate research or other scholarly project. The seminar is designed for sophomore and junior participants in the University Honors Program.

K-State 8: None

When Offered

Fall, Spring

RATIONALE: This course has been taught for several years as GNHE 399 Honors Seminar in Human Ecology. For consistency, we are moving all Honors courses to DHE prefixes and proposing that this course become a regular course in the honors course options, with a specific number and title. This will still allow general Honors Seminars to be taught under 399 (which is simultaneously being proposed to change to DHE 399).

EFFECTIVE DATE: Fall 2011

IMPACT ON OTHER UNITS: None

Gerontology

ADD NEW COURSE

GERON 501 Culture Change in Long-Term Care

Credits: (1)

This course will cover the basic characteristics of traditional and culture change nursing home models. Students will learn about the various processes of organizational change, the steps toward change, and potential regulatory, environmental and social barriers to major change. The course will include discussions about the necessity to change the way care is provided in such areas as dining, bathing, family/relationships, and environment. This overview is recommended as the first course for students unfamiliar with culture change and is delivered on-line.

K-State 8: None

When Offered

Fall

RATIONALE: The Center on Aging is revamping the secondary major in long-term care administration program which was created more than twenty years ago. Over the years, many of the original courses have been dropped as professors have left campus and we find ourselves struggling to help students meet the requirements of the program. Making changes to the program requirements and developing new courses will ensure program content is relevant to current trends in the field, which will help students in passing the required licensing exam. We anticipate that students from the KSU long-term care program will enroll in this course. Additionally there will be a market for this online course among staff at nursing homes across the state and the nation.

EFFECTIVE DATE: Fall 2011

IMPACT ON OTHER UNITS: None

ADD NEW COURSE

GERON 502 Measuring Change in Long-Term Care

Credits: (1)

Topics covered will include process and outcome measures in nursing home change as well as the importance of and the utility of measurement for the advancement of quality of life issues in long-term care. Students will gain an understanding of how regulatory support will be more likely to occur if culture change features can show a cost savings as well as improvements in the quality of life of residents. This on-line course should be taken after or concurrently with GERON 501.

K-State 8: None

When Offered

Fall

RATIONALE: The Center on Aging is revamping the secondary major in long-term care administration program which was created more than twenty years ago. Over the years, many of the original courses have been dropped as professors have left campus and we find ourselves struggling to help students meet the requirements of the program. Making changes to the program requirements and developing new courses will ensure program content is relevant to current trends in the field, which will help students in passing the required licensing exam. We anticipate that students from the KSU long-term care program will enroll in this course. Additionally there will be a market for this online course among staff at nursing homes across the state and the nation.

EFFECTIVE DATE: Fall 2011

IMPACT ON OTHER UNITS: None

ADD NEW COURSE

GERON 503 Creating Home in Long-Term Care

Credits: (1)

Students will gain a better understanding of the interdependent networks within nursing homes, environmental factors in the development of community and culture in a nursing home, learn how fostering resident, family and staff interactions can improve quality of life for all those groups, understand the role of structural redesign and innovation, and consider how environmental change can improve relationships within the larger community. This on-line course should be taken after or concurrently with GERON 501.

K-State 8: None

When Offered

Spring

RATIONALE: The Center on Aging is revamping the secondary major in long-term care administration program which was created more than twenty years ago. Over the years, many of the original courses have been dropped as professors have left campus and we find ourselves struggling to help students meet the requirements of the program. Making changes to the program requirements and developing new courses will ensure program content is relevant to current trends in the field, which will help students in passing the required licensing exam. We anticipate that students from the KSU long-term care program will enroll in this course. Additionally there will be a market for this online course among staff at nursing homes across the state and the nation.

EFFECTIVE DATE: Fall 2011

IMPACT ON OTHER UNITS: None

ADD NEW COURSE

GERON 504 Strengthening Staff in Long-Term Care

Credits: (1)

Topics covered will include the development of deeper relational bonds within the nursing home environment, benefits of permanent staffing as a key component of building a relationship centered culture, how these types of changes can benefit and empower staff, and models for bridging cultural divides between long-term care administrators and staff to benefit the residents. A review of the impact of traditional models of managed care that focus on providing food, shelter, and medical attention and factors that hinder purposeful, proactive interactions between residents, families and staff. This on-line course should be taken after or concurrently with GERON 501.

K-State 8: None

When Offered

Fall

RATIONALE: The Center on Aging is revamping the secondary major in long-term care administration program which was created more than twenty years ago. Over the years, many of the original courses have been dropped as professors have left campus and we find ourselves struggling to help students meet the requirements of the program. Making changes to the program requirements and developing new courses will ensure program content is relevant to current trends in the field, which will help students in passing the required licensing exam. We anticipate that students from the KSU long-term care program will enroll in this course. Additionally there will be a market for this online course among staff at nursing homes across the state and the nation.

EFFECTIVE DATE: Fall 2011

IMPACT ON OTHER UNITS: None

ADD NEW COURSE

GERON 505 Dining in Long-Term Care

Credits: (1)

Students will develop an appreciation of the impact dining has on the quality of social, physical and emotional health and quality of life of nursing home residents, become aware of the meanings/customs that residents may associate with the dining experience, recognize the importance of the dining experience in the overall culture of the home and develop an understanding of various institutional dining styles. This on-line course should be taken after or concurrently with GERON 501.

K-State 8: None

When Offered

Spring

RATIONALE: The Center on Aging is revamping the secondary major in long-term care administration program which was created more than twenty years ago. Over the years, many of the original courses have been dropped as professors have left campus and we find ourselves struggling to help students meet the requirements of the program. Making changes to the program requirements and developing new courses will ensure program content is relevant to current trends in the field, which will help students in passing the required licensing exam. We anticipate that students from the KSU long-term care program will enroll in this course. Additionally there will be a market for this online course among staff at nursing homes across the state and the nation.

EFFECTIVE DATE: Fall 2011

IMPACT ON OTHER UNITS: None

ADD NEW COURSE

GERON 506 Activities in Long-Term Care

Credits: (1)

A review of common activities in long term care, their importance in resident care, the importance of meaningful activity and relationships, how the long-term care culture impacts resident individuality/choice, and individualized care plans. This on-line course is recommended to be taken after or concurrently with GERON 501.

K-State 8: None

When Offered

Spring

RATIONALE: The Center on Aging is revamping the secondary major in long-term care administration program which was created more than twenty years ago. Over the years, many of the original courses have been dropped as professors have left campus and we find ourselves struggling to help students meet the requirements of the program. Making changes to the program requirements and developing new courses will ensure program content is relevant to current trends in the field, which will help students in passing the required licensing exam. We anticipate that students from the KSU long-term care program will enroll in this course. Additionally there will be a market for this online course among staff at nursing homes across the state and the nation.

EFFECTIVE DATE: Fall 2011

IMPACT ON OTHER UNITS: None

Non-Expedited UNDERGRADUATE Curriculum Change Proposals

College of Human Ecology

College of Human Ecology degree requirements

CHANGE FROM:			CHANGE TO:		
Program requirements			Program requirements		
Course	Course Title	Credit Hours	Course	Course Title	Credit Hours
General requirements		39 minimum	General requirements		36 minimum
<i>Communications</i>		8-9	<i>Communications</i>		8-9
ENGL 100	Expository Writing I	3	ENGL 100	Expository Writing I	3
ENGL 200	Expository Writing II	3	ENGL 200	Expository Writing II	3
COMM 105	Public Speaking IA	2	COMM 105	Public Speaking IA	2
or			or		
COMM 106	Public Speaking I	3	COMM 106	Public Speaking I	3
<i>Quantitative studies</i>		6	<i>Quantitative studies</i>		6
MATH 100	College Algebra	3	MATH 100	College Algebra	3
or			or		
A college-level calculus course		3	A college-level calculus course		3
Statistics course		3	Statistics course		3
<i>Social science</i>		6	<i>Social science</i>		6
(To include course work in economic systems and human behavior.)*			(To include course work in economic systems and human behavior.)*		
<i>Humanities</i>		6	<i>Humanities</i>		6
Electives*		6	Electives*		6
<i>Natural sciences</i>		7	<i>Natural sciences</i>		7
(To include course work in life science and physical science; one course with a laboratory.)*			(To include course work in life science and physical science; one course with a laboratory.)*		
<i>Additional integrative studies courses</i>		6	<i>Additional integrative studies courses</i>		<u>3</u>
GNHE 310	Human Needs	3	GNHE 310	Human Needs	3
or			or		

FSHS 350	Family Relationships and Gender Roles	3	FSHS 350	Family Relationships and Gender Roles	3
University general education elective		3			
Professional studies		36 or more	Professional studies		36 or more
A minimum of 30 hours must be in human ecology or equivalent courses. (See specific option/program.)			A minimum of 30 hours must be in human ecology or equivalent courses. (See specific option/program.)		
Unrestricted electives			Unrestricted electives		
(See specific option/program.)			(See specific option/program.)		
Total hours for graduation		124 or more	Total hours for graduation		120 or more

Rationale: All baccalaureate programs in the College of Human Ecology are built on a common framework of requirements. Proposed change will eliminate the requirement for a “University General Education elective” in general requirements to accommodate the University change from “UGE” to “K-State 8 General Education” effective fall 2011. KBOR has reduced the total hours required for baccalaureate degrees.

Effective Date: Fall 2011

Impact: None

Gerontology

Change From:

Change To:

<p>Gerontology: Secondary Major/Long-Term Care Administration Emphasis</p> <p>The emphasis in long-term care administration requires courses that cover the Social Security Title XIX Core of Knowledge recommendations for administrator licensure as determined by state regulation. Requirements for the emphasis include completion of the secondary major in gerontology with courses taken from each of the 10 Core of Knowledge recommendations. Courses may count for more than one area. The ten core areas include:</p> <ol style="list-style-type: none"> 1. Applicable standards of environmental health and safety 2. Local health and safety regulations 3. General administration 4. Psychology of resident care 5. Principles of medical care 6. Personal and social care 7. Therapeutic and supportive care/services in long-term care 8. Departmental organization and management 	<p>Secondary Major in Long-Term Care Administration (30 credit hours)</p> <p><u>A student completing this secondary major will be eligible to take the licensing exams that are required for Adult Care Home Administrators in Kansas.</u> The emphasis in long-term care administration requires courses that cover the Social Security Title XIX Core of Knowledge recommendations for administrator licensure as determined by state regulation. Courses may count for more than one area. The ten core areas include:</p> <ol style="list-style-type: none"> 1. Applicable standards of environmental health and safety 2. Local health and safety regulations 3. General administration 4. Psychology of resident care 5. Principles of medical care 6. Personal and social care 7. Therapeutic and supportive care/services in long-term care 8. Departmental organization and management
--	--

<p>9. Community interrelationships 10. Electives</p> <p>Students must also complete a semester long, 480 hour internship in a Kansas-licensed adult care home, a long-term care unit of a Kansas-licensed hospital, or a combination of the two. Assisted living and residential health care facilities do not qualify for this internship. Enrollment in the internship is by permission only; please contact Pam Evans at (785) 532-5945 or pevans@ksu.edu. Students must maintain an overall GPA of 2.5, and a GPA of 3.0 in gerontology courses to qualify for the internship program.</p> <p>Students who complete the long term care administration emphasis along with a Bachelors degree of their choice are eligible to take the <u>Kansas Adult Care Home Administrator licensing exam</u>. Students interested in this program must meet with an advisor in the <u>Center on Aging</u> to determine which elective courses they should take to cover the core of knowledge requirements.</p> <p>Required courses</p> <p><u>ACCTG 231 - Accounting for Business Operations</u> <u>GERON 315 - Introduction to Gerontology</u> <u>GERON 600 - Seminar in Gerontology</u> <u>GERON 610 - Seminar in Long-Term Care Administration</u> <u>GERON 615 - Long-Term Care Administration Internship</u> <u>MANGT 420 - Management Concepts</u> <u>Electives</u> — See the <u>Center on Aging</u> advisor for a list of courses which may be used to complete the elective requirements for this emphasis.</p>	<p>9. Community interrelationships 10. Electives</p> <p>Students must also complete a semester long, <u>600</u> hour internship in a Kansas-licensed adult care home, a long-term care unit of a Kansas-licensed hospital, or a combination of the two. Assisted living and residential health care facilities do not qualify. Enrollment in the internship is by permission only. Students must maintain an overall GPA of 2.5, and a GPA of 3.0 in gerontology courses to qualify for <u>enrollment in GERON 615 Long-Term Care Administration Internship</u>.</p> <p>Students who complete the <u>Secondary Major in Long-Term Care Administration</u> along with a Bachelors degree of their choice are eligible to take the <u>Kansas Adult Care Home Administrator licensing exam</u>. Students interested in this program must meet with an advisor in the <u>Center on Aging</u>.</p> <p><u>Students enrolled in the internship will complete an on-line module that corresponds with the internship. This module will include additional information from required knowledge areas for the licensing exam.</u></p> <p><u>Note: Individuals who have already completed a bachelor's degree may be enrolled in GERON 615 Long Term Care Administration internship without completing the secondary major if they meet the following requirements:</u></p> <ul style="list-style-type: none"> • <u>Demonstration of proficiency in management and accounting as gauged by career path</u> • <u>Review of resume and transcripts by Center on Aging staff</u> • <u>Interview with Center on Aging committee</u> • <u>Concurrent enrollment or enrollment prior to the internship in GERON 610. Seminar in Long-Term Care Administration is strongly encouraged.</u> <p><u>*Requirements</u> ACCTG 231- Accounting for Business Operations GERON 315- Introduction to Gerontology <u>GERON 600 - Seminar in Gerontology</u> GERON 610, Seminar in Long-Term Care Administration <u>(taken prior to or concurrently with GERON 615)</u> GERON 615 Long-Term Care Administration Internship MANGT 420, Management for Business Operations</p> <p><u>Six hours of electives from the following list:</u></p> <ul style="list-style-type: none"> • <u>GERON 501 Culture Change in Long-Term Care</u> • <u>GERON 502 Measuring Change in Long-Term Care</u> • <u>GERON 503 Creating Home in Long-Term Care</u> • <u>GERON 504 Strengthening Staff in Long-Term</u>
--	---

	<p style="text-align: center;"><u>Care</u></p> <ul style="list-style-type: none"> • <u>GERON 505 Dining in Long-Term Care</u> • <u>GERON 506 Activities in Long-Term Care</u> • <u>GERON 630 Mental Health and Aging</u> • <u>BIOL 404 Biology of Aging</u> • <u>GERON 710 Creativity and Aging</u> • <u>ARCH 730 Environment and Aging</u> • <u>FSHS 510 Human Development and Aging</u> • <u>A leadership course approved by the Gerontology Advisor</u> • <u>Additional courses developed or approved by the Center on Aging director</u> <p style="text-align: center;">*This program covers required content from the Core of <u>Knowledge for Nursing Home Administrators as defined in K.A.R. 28-38-29, or the “domains of practice,” as defined in K.A.R. 28-38-29.</u></p>
--	--

Rationale: Many significant changes have occurred in the long-term care industry since this program was created. Traditional nursing homes are becoming a thing of the past. The trend is to create a more homelike atmosphere where residents can make their own decisions about their schedule and their care. Additionally assisted living residences are becoming much more commonplace in Kansas and the US. These changes require that our program be updated to reflect the focus on resident-directed care and the preservation of the dignity of the older population. We have requested comments about our proposed program from current students, administrators of long-term care organizations with whom we partner, alumni of our program, and a staff member in the Kansas Dept. of Health and Environment, Bureau of Adult and Child Care, Health Occupations Credentialing. Their suggestions were taken into consideration when planning changes to this program.

EFFECTIVE DATE: Fall 2011
IMPACT ON OTHER UNITS: None

Department of Hospitality Management and Dietetics

B. S. in Dietetics

Change:

<p>Change from:</p> <p>BS in Dietetics</p> <p>GENERAL REQUIREMENTS (64–63 credit hours)</p> <p>Communications (8–9 credit hours)</p> <p>COMM 105 - Public Speaking IA Credits: (2)</p> <p>or</p> <p>COMM 106 - Public Speaking I Credits: (3)</p> <p>ENGL 100 - Expository Writing I Credits: (3)</p> <p>ENGL 200 - Expository Writing II Credits: (3)</p> <p>Social Science (6 credit hours)</p> <p>ECON 110 - Principles of Macroeconomics Credits: (3)</p> <p>PSYCH 110 - General Psychology Credits: (3)</p> <p>or</p> <p>SOCIO 211 - Introduction to Sociology Credits: (3)</p>	<p>Change to:</p> <p>BS in Dietetics</p> <p>GENERAL REQUIREMENTS (60–63 credit hours)</p> <p>Communications (8–9 credit hours)</p> <p>COMM 105 - Public Speaking IA Credits: (2)</p> <p>or</p> <p>COMM 106 - Public Speaking I Credits: (3)</p> <p>ENGL 100 - Expository Writing I Credits: (3)</p> <p>ENGL 200 - Expository Writing II Credits: (3)</p> <p>Social Science (6 credit hours)</p> <p>ECON 110 - Principles of Macroeconomics Credits: (3)</p> <p>PSYCH 110 - General Psychology Credits: (3)</p> <p>or</p> <p>SOCIO 211 - Introduction to Sociology Credits: (3)</p>
--	--

Natural Sciences (29–30 credit hours)*(Grades of C or higher required.)*

[BIOCH 521 - General Biochemistry](#) Credits: (3)
[BIOL 198 - Principles of Biology](#) Credits: (4)
[BIOL 340 - Structure and Function of the Human Body](#) Credits: (8)
 OR
[CHM 210 - Chemistry I](#) Credits: (4)
[CHM 230 - Chemistry II](#) Credits: (4)
[CHM 350 - General Organic Chemistry](#) Credits: (3)

Choose from the following:

[BIOL 455 - General Microbiology](#) Credits: (4)
 or
[HMD 220 - Environmental Issues in Hospitality I](#) Credits: (2)
 and
[HMD 420 - Environmental Issues in Hospitality II](#) Credits: (1)

Quantitative Studies (6 credit hours)*Complete 3 credit hours in Math*

[MATH 100 - College Algebra](#) Credits: (3)
 or a College-level calculus course

Complete 3 hours in statistics

[STAT 325 - Introduction to Statistics](#) Credits: (3)
[STAT 340 - Biometrics I](#) Credits: (3)
[STAT 350 - Business and Economic Statistics I](#) Credits: (3)

Humanities electives (6 credit hours)**Integrative studies (6 credit hours)**

[ACCTG 231 - Accounting for Business Operations](#) Credits: (3)
[FSHS 350 - Family Relationships and Gender Roles](#) Credits: (3)
 or
[GNHE 310 - Human Needs](#) Credits: (3)

Choose one of the professional programs: I, II.**Program I: Coordinated program in dietetics****Professional studies (66 credit hours)***(Grades of C or higher required.)*

[HMD 130 - Careers in Nutrition and Dietetics](#) Credits: (1)
[HMD 341 - Principles of Food Production Management](#) Credits: (3)
[HMD 342 - Food Production Management](#) Credits: (3)
[HMD 426 - Financial Management in Dietetics](#) Credits: (3)
[HMD 515 - Counseling Strategies in Dietetic Practice](#) Credits: (3)
 OR
[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 600 - Public Health Nutrition](#) Credits: (3)
[HN 620 - Nutrient Metabolism](#) Credits: (3)
[HN 631 - Clinical Nutrition I](#) Credits: (2)
[HN 632 - Clinical Nutrition II](#) Credits: (3)

Management semester

[HMD 560 - Management in Dietetics](#) Credits: (3)
[HMD 561 - Management in Dietetics Practicum](#) Credits: (8)
[HMD 562 - Management in Dietetics Practicum Recitation](#) Credits: (1)

Summer semester

[HMD 516 - Communication Competencies in Dietetics Practice](#) Credits: (1)
[HMD 517 - Communication Competencies in Dietetics Practicum](#)

Natural Sciences (28–30 credit hours)*(Grades of C or higher required.)*

[BIOCH 521 - General Biochemistry](#) Credits: (3)
 and
[CHM 350 - General Organic Chemistry](#) Credits: (3)
 OR
[BIOCH 265 - Intro to Organic and Biochemistry](#) Credits: (5)
[BIOL 198 - Principles of Biology](#) Credits: (4)
[BIOL 340 - Structure and Function of the Human Body](#) Credits: (8)
 OR
[KIN 360 - Anatomy & Physiology](#) Credits: (8)
[CHM 210 - Chemistry I](#) Credits: (4)
[CHM 230 - Chemistry II](#) Credits: (4)

Choose from the following:

[BIOL 455 - General Microbiology](#) Credits: (4)
 or
[HMD 220 - Environmental Issues in Hospitality I](#) Credits: (2)
 and
[HMD 420 - Environmental Issues in Hospitality II](#) Credits: (1)

Quantitative Studies (6 credit hours)*Complete 3 credit hours in Math*

[MATH 100 - College Algebra](#) Credits: (3)
 or a College-level calculus course

Complete 3 hours in statistics

[STAT 325 - Introduction to Statistics](#) Credits: (3)
[STAT 340 - Biometrics I](#) Credits: (3)
[STAT 350 - Business and Economic Statistics I](#) Credits: (3)

Humanities electives (6 credit hours)**Integrative studies (6 credit hours)**

[ACCTG 231 - Accounting for Business Operations](#) Credits: (3)
[FSHS 350 - Family Relationships and Gender Roles](#) Credits: (3)
 or
[GNHE 310 - Human Needs](#) Credits: (3)

Choose one of the professional programs: I, II.**Program I: Coordinated program in dietetics****Professional studies (67 credit hours)***(Grades of C or higher required.)*

[HMD 130 - Careers in Nutrition and Dietetics](#) Credits: (1)
[HMD 341 - Principles of Food Production Management](#) Credits: (3)
[HMD 342 - Food Production Management](#) Credits: (3)
[HMD 426 - Financial Management in Dietetics](#) Credits: (3)
[HMD 515 - Counseling Strategies in Dietetic Practice](#) Credits: (3)
 OR
[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 600 - Public Health Nutrition](#) Credits: (3)
[HN 620 - Nutrient Metabolism](#) Credits: (3)
[HN 631 - Clinical Nutrition I](#) Credits: (2)
[HN 632 - Clinical Nutrition II](#) Credits: (3)

Management semester

[HMD 560 - Management in Dietetics](#) Credits: (3)
[HMD 561 - Management in Dietetics Practicum](#) Credits: (8)
[HMD 562 - Management in Dietetics Practicum Recitation](#) Credits: (1)

Summer semester

<p>Credits: (1) HMD 570 - Introduction to Research in Dietetics Practice Credits: (1)</p> <p><i>Clinical semester</i> HMD 510 - Introduction to Clinical Dietetics Credits: (1) HMD 520 - Applied Clinical Dietetics Credits: (3) HMD 521 - Clinical Dietetic Practicum Credits: (8)</p> <p>Unrestricted electives (0 credit hours)</p> <p>Total hours required for graduation (127 credit hours)</p> <p>Program II: Didactic program in dietetics Professional studies (45-63 credit hours) <i>(Grades of C or higher required.)</i> HMD 130 - Careers in Nutrition and Dietetics Credits: (1) HMD 341 - Principles of Food Production Management Credits: (3) HMD 342 - Food Production Management Credits: (3) HMD 426 - Financial Management in Dietetics Credits: (3) *HMD 490 Practicum in Clinical Dietetics Credits: (3) HMD 515 - Counseling Strategies in Dietetic Practice Credits: (3) * HMD 560 - Management in Dietetics Credits: (3) * HMD 570 - Introduction to Research in Dietetics Practice Credits: (1) 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 600 - Public Health Nutrition Credits: (3) HN 620 - Nutrient Metabolism Credits: (3) HN 631 - Clinical Nutrition I Credits: (2) HN 632 - Clinical Nutrition II Credits: (3) *Must be admitted into the DPD program to take HMD 490, HMD 560 and HMD 570.</p> <p>Unrestricted electives (17-19 credit hours)</p> <p>Total hours required for graduation (125 credit hours)</p>	<p>HMD 516 - Communication Competencies in Dietetics Practice Credits: (1) HMD 517 - Communication Competencies in Dietetics Practicum Credits: (1) HMD 570 - Introduction to Research in Dietetics Practice Credits: (1)</p> <p><i>Clinical semester</i> HMD 510 - Introduction to Clinical Dietetics Credits: (1) HMD 520 - Applied Clinical Dietetics Credits: (3) HMD 521 - Clinical Dietetic Practicum Credits: (8)</p> <p>Unrestricted electives (0 credit hours)</p> <p>Total hours required for graduation (127 credit hours)</p> <p>Program II: Didactic program in dietetics Professional studies (46 credit hours) <i>(Grades of C or higher required.)</i> HMD 130 - Careers in Nutrition and Dietetics Credits: (1) HMD 341 - Principles of Food Production Management Credits: (3) HMD 342 - Food Production Management Credits: (3) HMD 426 - Financial Management in Dietetics Credits: (3) *HMD 490 Practicum in Clinical Dietetics Credits: (3) HMD 515 - Counseling Strategies in Dietetic Practice Credits: (3) * HMD 560 - Management in Dietetics Credits: (3) * HMD 570 - Introduction to Research in Dietetics Practice Credits: (1) 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 600 - Public Health Nutrition Credits: (3) HN 620 - Nutrient Metabolism Credits: (3) HN 631 - Clinical Nutrition I Credits: (2) HN 632 - Clinical Nutrition II Credits: (3) *Must be admitted into the DPD program to take HMD 490, HMD 560 and HMD 570.</p> <p>Unrestricted electives (11-14 credit hours)</p> <p>Total hours required for graduation (120 credit hours)</p>
--	--

Rationale: Dietetics students currently take BIOCH 521 (3) and CHM 350 (3). Students will benefit from having the option to take BIOCM 265 Intro to organic and biochemistry (5).

Dietetics students commonly take BIOL 340 (8) Structure & Function of Human Body. However, many transfer students substitute KIN 360 (8) Anatomy & Physiology. We would like for the Dietetics Option Sheet to reflect KIN 360 as an alternative to BIOL 340.

Effective Date: Fall 2011

Impact (i.e. if this impacts another unit): Students may divert to the BIOCH 265 course versus BIOCH 521 and CHM 350, yielding more than typical enrollment in BIOCH 265. Per discussion with Dr. Kanost, room exists for 3 to 10 students per semester in BIOCH 265. Students will likely only be able to enroll on a first come/first served basis.

The Kinesiology department approved accepting additional dietetics majors in KIN 360.

Department of Human Nutrition

CHANGE: Admission process in Athletic Training Program

Change From:	Change to:
<p><i>Admission policy</i> Formal admission link http://www.he.k-state.edu/hn/programs/ugrad/athtr/admission.php</p> <p>Students initially are admitted to the Athletic Training major based on Kansas State University admission guidelines. The first year in the program is a guided observation phase, during which students are assigned to a rotation among the various sports and athletic training rooms at K-State. In the spring semester, students apply for admission to the six-semester practicum phase of the program. The practicum phase provides clinical and field experiences for students to apply related skills in the context of direct patient care at clinical affiliate sites, which include area high schools, clinics and collegiate settings.</p>	<p><i>Admission policy</i> Formal admission link http://www.he.k-state.edu/hn/programs/ugrad/athtr/admission.php</p> <p><u>Applicants must first be admitted to Kansas State University either as an incoming freshman or a transfer student. Admission to the Athletic Training major is both selective and limited. This admissions process is used to admit the most qualified applicants who have indicated the desired curriculum of athletic training. Declaration of the desired curriculum of athletic training does not guarantee admission to the athletic training educational program.</u></p> <p><u>Step 1: Initial Admission to the Athletic Training Major</u></p> <p><u>Incoming New Students:</u> <u>Individuals who have completed admission applications submitted to the University by February 1 will be in the first round of applications considered for the following Fall semester. Applications completed after February 1 will automatically be placed on a wait list for the Athletic Training Education Program.</u></p> <p><u>Procedures for Incoming New Freshmen:</u></p> <ul style="list-style-type: none">A) <u>Apply online for admission to K-State (www.k-state.edu/admit)</u>B) <u>Select Athletic Training major as curriculum option.</u>C) <u>If admitted to K-State, applicants will be evaluated for selective admission to the athletic training major by the athletic training program faculty to identify the best prepared prospective students based on ACT/SAT score, non-weighted GPA, and class rank.</u>D) <u>Applicants in most cases will be notified of their admission status to the athletic training major in March. In some instances high school applicants who have been awarded premier scholarships</u>

will qualify for early admission and will be notified in January.

- E) Participate in enrollment during summer orientation with the Athletic Training Education Program advisors.

Procedures for Transfer students:

- A) Apply online for admission to K-State (www.k-state.edu/admit).
- B) Select Athletic Training major as curriculum option
- C) If admitted to K-State, applicants will be evaluated for selective admission to the athletic training major by the athletic training program faculty. A minimum GPA of 2.75 is required.
- D) Applicants in most cases will be notified of their admission status to the athletic training major in March. Non-admitted students will be notified at this time as well.
- E) All transfer students will be expected to complete the procedures as outlined in Step 2.

Step 2: Advancement into Professional Phase:

Advancement into the athletic training professional phase will only occur once a year. All students applying for advancement into the professional phase of the athletic training education program are required to complete an interview with the program faculty.

The following criteria will be considered for advancement of students into the professional phase of the athletic training education program.

- Major GPA: The GPA which combines grades from the following classes will be considered the most important criteria for admission: Chemistry, Basic Nutrition, Principles of Biology, and Introduction to Athletic Training.
- Recommendations: The three recommendations submitted with the application packet will be evaluated for the qualities listed on the form provided by the [program director](#).
- Overall GPA: The overall GPA from all collegiate coursework will be considered. The

	<p><u>required minimum cumulative GPA is a 2.75</u></p> <ul style="list-style-type: none"> • <u>Observation Hours: This is a basic requirement to begin the program. These are completed in conjunction with the HN 120 Introduction to Athletic Training class. The quality of experiences is more important than the quantity of hours.</u> • <u>Statement of Interest: The statement is submitted as part of the application materials. The letter that indicates a strong interest and understanding of the athletic training profession will be considered most advantageous to advancement.</u> • <u>Experiences under a certified athletic trainer prior to entering the athletic training education program will be considered in the advancement process. This does not include the observation hours described previously.</u>
--	---

RATIONALE: Due to resource constraints, academic faculty loads and facilities and limited internship placement sites, the program must create a selective admission process into the Athletic Training degree to assist with enrollment management of students at the beginning of the academic program. Current advancement procedures result in requiring some students to change majors after the freshman year. Initial selective admission will reduce the number of students required to change and reduce the impact on alternative programs that students tend to choose when they cannot continue in the Athletic Training major. We would like to have the selective admission process in place by Summer Term 2011 for students applying for admission for Fall Term 2012.

EFFECTIVE DATE: Summer 2011 for Fall 2012 admits

IMPACT ON OTHER UNITS: No other unit is impacted.

COLLEGE OF AGRICULTURE (approved 3-28-11)

COURSE CHANGES

Agricultural Economics:

- DROP:** AGEC 415. The Global Agricultural Economy, Hunger, and Poverty. (3) I. Describe and analyze the interdependencies between the world's food, populations, and equitability/poverty problems and then assess alternative solutions to these problems, in particular the role of technological and policy/institutional changes, in fostering sustainable development. Specific emphasis will be placed on relationships between wealthy and poor countries, particularly in terms of policies, trade, and aid. Examination of these problems and issues involves the use of basic economic principles. Three hours lec a week. Pr.: AGEC 120 or AGEC 121 or ECON 120. Rec. Pr.: ECON 110.
- RATIONALE:** Department has revised its course sequence to require all students to take AGEC 315 to assure that all our students study contemporary issues in global food and agriculture. Because AGEC 315 covers some of the material that had been in AGEC 415, AGEC 415 will be dropped and replaced with a more advanced course on agricultural development.
- IMPACT:** During the past two years, 94-97 percent of students in the course were College of Agriculture students. Fifty-five to 61 percent of students were AGEC/AGBUS students. Little impact on other departments is expected since AGEC 315 will be available. The Department of Agronomy requires AGEC 415 for its Plant Science and Biotechnology students, but they indicate that AGEC 315 will meet their needs.
- EFFECTIVE DATE:** Fall 2012

Horticulture, Forestry and Recreation Resources:

- FROM:** HORT 515. Basic Turfgrass Culture. (2), II. Turfgrass identification and adaptation; establishment and maintenance of turf for home lawns, parks, and commercial/institutional grounds. Two hours recitation and two hours lab a week for first 11 weeks of the semester. Rec. Pr.: HORT 201 and AGRON 305.
- TO:** HORT 515. Basic Turfgrass Culture. (2), II. Turfgrass identification and adaptation; establishment and maintenance of turf for home lawns, parks, and commercial/institutional grounds. Two hours recitation and two hours lab a week for first 11 weeks of the semester. Rec. Pr.: HORT 201 and AGRON 305.
- RATIONALE:** The course is currently only taught as an on-campus course. We would like to make this course available via distance education for off-campus students.
- IMPACT:** None.
- EFFECTIVE DATE:** Spring 2012
- FROM:** HORT 516. Intensive Culture of Golf and Sports Turf. (1), II. Advanced topics in golf and sports turf maintenance, focusing on practices unique to intensively used and managed turf. Two hours lecture and two hours lab a week, for the last five weeks of the semester. Pr.: HORT 515 or concurrent enrollment.

TO: HORT 516. Intensive Culture of Golf and Sports Turf. (1), II. Advanced topics in golf and sports turf maintenance, focusing on practices unique to intensively used and managed turf. Two hours lecture and two hours lab a week, for the last five weeks of the semester. Pr.: HORT 515 or concurrent enrollment.

RATIONALE: The course is currently only taught as an on-campus course. We would like to make this course available via distance education for off-campus students.

IMPACT: None.

EFFECTIVE DATE: Spring 2012

CURRICULUM CHANGE

Plant Pathology:

FROM:

Applied Genomics and Biotechnology Minor

Program requirements (~~17-21~~ total credit hours)

The minor requires a total of ~~17-21~~ credit hours. To pursue the Applied Genomics and Biotechnology minor the student must file a letter of intent with the program coordinator prior to taking the last 3 courses. The undergraduate research project or internship must be ~~pre-~~approved by the minor coordinator ~~and students must enroll in PLPTH 614, PLPTH 599 or equivalent to present a final report.~~

~~[BIOCH 521 - General Biochemistry](#) (3)
[PLPTH 612 - Genomics Applications](#) (3)
[PLPTH 613 - Bioinformatics Applications](#) (2)~~

~~Choose one from the following:~~

~~[AGRON 610 - Biotechnology](#) (3)~~

~~or~~

~~[PLPTH 610 - Biotechnology](#) (3)~~

~~Plus one additional course in genetics:~~

~~[ASI 500 - Genetics](#) (3)~~

~~or~~

~~[BIOL 450 - Modern Genetics](#) (4)~~

~~Select a laboratory course:~~

~~[BIOL 676 - Molecular Genetics Laboratory](#) (3)~~

~~or~~

~~[PLPTH 611 - Agricultural Biotechnology Laboratory](#) (2)~~

TO:

Applied Genomics and Biotechnology Minor

Program requirements (16-29 total credit hours)

The minor requires a total of 16-29 credit hours. To pursue the Applied Genomics and Biotechnology minor the student must file a letter of intent with the program coordinator prior to taking the last 3 courses. The specific undergraduate research project or internship must be approved by the minor coordinator in order to count towards the completion of the minor. The student must present a final report for the undergraduate research project

Choose one course in genetics:

[ASI 500 - Genetics](#) (3)

or

[BIOL 450 - Modern Genetics](#) (4)

Choose one biotechnology course:

[PLPTH 610 - Biotechnology](#) (3)

or

[AGRON 610 - Biotechnology](#) (3)

Additional required course:

[PLPTH 612 - Genomics Applications](#) (3)

Select a laboratory course:

[PLPTH 611 - Agricultural Biotechnology Laboratory](#) (2)

or

[BIOL 676 - Molecular Genetics Laboratory](#) (3)

Select a research project or internship (minimum 1 credit hour):

[PLPTH 599 - Undergraduate Research in Plant Pathology](#) (0-3)

or equivalent

or

[PLPTH 614 - Internship for Applied Genomics and Biotechnology](#) (1-3)

or equivalent

or

[BIOCH 766 – Recombinant DNA Laboratory I](#) (1)

and

[BIOCH 767 – Recombinant DNA Laboratory II](#) (1)

Select a research project or internship from the list (or equivalent): (minimum 1 credit hour)

* The specific undergraduate research project or internship must be approved by the minor coordinator in order to count towards the completion of the minor. The student must present a final report for the undergraduate research project or internship.

[AGRON 405 Internship in Agronomy](#) (0-3)

[AGRON 600 Crop Problems](#) (Variable)

[ASI 599 Animal Science Internship](#) (1-6)

[ASI 661 Animal Sciences and Industry Problems](#)

[BAE 499 Honors Research in Biological and](#)

[Agricultural Engineering Credits](#) (Variable)

[BAE 620 Problems in Biological and Agricultural](#)

[Engineering](#)

[BIOCH 599 Research Training in Biochemistry](#) (1-3)

[BIOCH 799 Problems in Biochemistry Credits](#)

(Variable)

[BIOL 698 Problems in Biology Credits](#) (1-8)

[CHM 497 Research in Undergraduate Chemistry](#) (1-3)

[CHM 498 Honors Project](#) (3)

[FDSCI 630 Food Science Problems](#)

[HORT 640 Horticultural Problems](#)

[HORT 590 Horticulture Internship](#)

[PLPTH 599 - Undergraduate Research in Plant](#)

[Pathology](#) (0-3)

[PLPTH 614 - Internship for Applied Genomics and](#)

[Biotechnology](#) (1-3)

Plus select at least two additional courses from the elective list (4-8 credits):

[AGRON 630 Crop Improvement and Biotechnology](#) (3)

[ASI 510 Animal Breeding Principles](#) (3)

[ASI 600 Applied Animal Biotechnology](#) (2)

[BIOCH 521 General Biochemistry](#) (3)

[BIOCH 522 General Biochemistry Lab](#) (2)

[BIOL 455 General Microbiology](#) (4)

[BIOL 541 Cell Biology](#) (3)

[BIOL 609 Cellular & Molecular Biology of Human Diseases](#) (3)

[BIOL 670 Immunology](#) (4)

[BIOL 671 Immunology Lab](#) (2)

[BIOL 675 Genetics of Microorganisms](#) (3)

[BIOL 705 Eukaryotic Genetics](#) (3)

[BIOL 707 Advanced Cell Biology](#) (3)

	<u>BIOL 734 Introduction to Genomics and Bioinformatics (4)</u> or <u>CIS 734 Introduction to Genomics and Bioinformatics (4)</u> <u>PLPTH 613 Bioinformatics Applications (2)</u> <u>PLPTH 732 Introduction to Plant Resistance to Pests (2)</u> <u>PLPTH 745 Plant Resistance to Insects (2)</u> <u>PLPTH 755 Plant Resistance to Diseases (2)</u> <u>PLPTH 780 Microarray Workshop (1)</u> <u>PLPTH 785 Real-Time PCR Workshop (1)</u>
--	---

RATIONALE: Adding more university wide courses to the elective list and the research and internship section should make it easier for students across the university to complete the Applied Genomics and Biotechnology minor.

IMPACT: Letters of approval for course inclusion have been sent to the following departments and programs: Agronomy (Mickey Ransom); Animal Sciences and Industry (Dave Nichols); Biological and Agricultural Engineering (Joe Harner); Biochemistry (Mike Kanost); Chemistry (Eric Maatta); Computer and Information Systems (Gurdip Singh); Food Science (John Unruh); Horticulture (Greg Davis); and The Division of Biology (Dave Rintoul). Responses have been received from all indicating their approval.

EFFECTIVE DATE: Fall 2011

COLLEGE OF ARTS & SCIENCES (Approved 4-7-11)

COURSE CHANGES

Dean of Arts and Sciences

ADD: DAS 050 – National Student Exchange. (1-15) I, II, S. Enrollment in this course would be required for students participating in the National Student Exchange program. Enrollment in this course would serve primarily as a placeholder and enable the student to maintain full-time enrollment status at K-State. A grade of I (incomplete) would be posted at the end of each term of enrollment. Upon receipt of the transfer transcript from the chosen exchange institution, the DAS 050 course would be removed from the student’s record and would be replaced by a text entry detailing participation in the National Student Exchange program. The actual hours earned would be reflected as transfer credit from the institution attended.

RATIONALE: Currently, National Student Exchange students enroll in MLANG 001 (Study Abroad). This is very confusing, since it appears on the student’s K-State transcript while the student is participating in the exchange program as “Study Abroad”.

This is a domestic exchange program and the proposed course, DAS 050, with a title of “National Student Exchange” would accurately reflect the program. This course serves as a placeholder and allows the student to maintain full-time enrollment status at K- State.

IMPACT: None

EFFECTIVE DATE: Spring 2012

Communication Studies, Theatre and Dance

ADD: COMM 432 – Communication Research Methods. (3) II. This course provides an overview of the concepts, methods, and tools by which communication research is designed and conducted. Methods covered in this course include: focus groups, surveys, experiments, and content analysis. By the end of this term, students should be able to critically consume communication research, understand the process of using social science to solve communication problems, and have experience in conducting your own research project. In this course, you will work both individually and as part of in-class teams.

RATIONALE: This course is designed to promote undergraduate research in communication studies. Currently, the Department does not offer a course in social scientific research methods. This course will be one of two methods courses (along with COMM 331 Criticism of Public Discourse) offered to our majors as a core requirement.

IMPACT: None

EFFECTIVE DATE: Fall 2012

Geography

FROM: GEOG 508 – Geographical Information Systems I. (3) II. Examination of the major concepts, theories, and operations in geographic information systems (GIS). Topics include: ~~the nature of georeferenced data, data acquisition, and spatial database management, coordinate systems and maps, data structure, and the basic GIS operations that are available for spatial analysis.~~ Pr.: GEOG 302.

TO: GEOG 508 – Geographical Information Systems I. (4) II. Examination of the major theories, concept, and operations in geographic information systems (GIS). Topics include the structure of geographic data models, geographic data acquisition, spatial database management, data processing methods. Vector and raster GIS operations, and general approaches to GIS-based spatial modeling. Pr.: GEOG 302

RATIONALE: Due to its conceptual and practical breadth, gaining proficiency in GIS requires students to complete multiple courses in topics such as spatial data handling, database design, spatial analysis, digital image processing and cartography/geographic visualization. However, many students (especially those outside of the discipline of Geography) rely on GIS I to provide a “complete” approach to GIS concepts, tools, and applications. As currently organized (3 credit hour course with two 50 minute lectures and one 110 minute laboratory per week), insufficient lecture time exists to provide a complete coverage of introductory GIS topics and to demonstrate their practical applications. Providing one additional 50 minute lecture period per week will effectively address this issue and better position students for success in later courses in the field of Geographic Information Science.

IMPACT: This proposed change from 3 to 4 credit hours may impact departments from across campus (e.g. Regional/Community Planning, Biological & Agricultural Engineering) who currently require their students to complete GEOG 508, or who list GEOG 508 as a technical elective, as part of their degree programs. Those same departments, however, will benefit by having better trained students after taking only a single class in GIS.

EFFECTIVE DATE: Fall 2011

History

ADD: HIST 538 – Women in Sport. (3) in alternate years. A survey of the history of the female athlete, with special emphasis on the significance of women in sport in the United States. Themes covered include the evolution of the social roles of sport, the relationship between sport and gender, and athletes’ construction of identity. Pr.: Sophomore standing.

RATIONALE: Lying at the nexus of women's studies, social and cultural history, and gender studies, the history of women's sport is serving to help redefine feminism in the twenty-first century. "Women in Sport" will further the department and university's teaching mission by introducing students to the growing literature in the field, thus increasing the breadth of undergraduates' intellectual horizons in the humanities and social sciences.

IMPACT: This course will not have a direct impact on other units, although it will provide an elective option for students in such disciplines as Women's Studies.

EFFECTIVE DATE: Fall 2011

Modern Languages

ADD: HINDI 201 – Hindi III. (4) I, II. Continuation of Hindi II. Listening, speaking, reading, and writing.

RATIONALE: To create a Hindi I-IV sequence in support of a DOW South Asian Studies grant that requires the teaching of Hindi. Hindi I and II have already been created.

IMPACT: None

EFFECTIVE DATE: Fall 2011

ADD: HINDI 202 – Hindi IV. (3) I, II. Continuation of Hindi III. Listening, speaking, reading, and writing.

RATIONALE: To create a Hindi I-IV sequence in support of a DOE South Asian Studies grant that requires the teaching of Hindi. Hindi I and II have already been created.

IMPACT: None

EFFECTIVE DATE: Fall 2011

Statistics

ADD: STAT 499 – Honors Project. (3) I, II, S. Open only to Arts and Science students who are active members of the University Honors Program.

RATIONALE: Currently, the Department does not have a course listing for honors students to take as their Honors Project in Statistics. Such a course is listed in most departments (typically as Senior Honors Thesis – but this is being changed to Honors Project) and serves as a "course" which is actually independent study. Students in the University Honors Program are required to do an Honors Project their junior/senior year and this course number allows them to receive credit.

IMPACT: None

EFFECTIVE DATE: Fall 2011

CURRICULUM CHANGES

Art (BA)

FROM:

TO:

	<p>General requirements for undergraduate major</p> <p>Students majoring in Art must earn a total of 124 credit hours for graduation. The BA program is obtained by following the curriculum of the College of Arts and Sciences .</p>
--	---

RATIONALE: The Department of Art requires 124 credit hours for graduation in their BA degree program.

IMPACT: None

EFFECTIVE DATE: Fall 2011

Art

FROM:

TO:

<p>Digital Art</p> <p>ART 400 ART 575 ART 623 ART 631 ART 616 (Animation) Repeat previous course OR choose from Digital Photo or Advanced Typography ART 410 ART 580</p>	<p>Digital Art</p> <p><u>ART 290</u> <u>ART 310</u> ART 400 ART 575 ART 623 ART 631 ART 410 ART 580</p>
---	--

RATIONALE: Remove the repeatable credit option and add Art 290 and Art 310 to the list of required classes for the Digital Arts major. This brings the tracks for Graphic Design and Digital Arts majors closer in line, will better use our combined

resources, it will ensure full sections of upper-level classes. ART 616 “Animation” is dropped as a requirement.

IMPACT: In the Digital Arts program only.

EFFECTIVE DATE: Fall 2011

Biochemistry

FROM:

TO:

	<p>General requirements for undergraduate major</p> <p>A total of 124 credit hours are required for graduation. The BA/BS program is obtained by following the curriculum of the College of Arts and Sciences.</p> <p>To graduate, a student must have a grade of C or better in all science and mathematics courses required for the degree, including transfer courses, as specified below. In addition, to graduate a student must have a 2.2 GPA in required science and mathematics courses taken at K-State.</p>
--	---

RATIONALE: The Biochemistry Department is requiring at least 124 credit hours for graduation with a B.S. or B.A. degree.

IMPACT: None

EFFECTIVE DATE: Fall 2011

Chemistry

FROM:

TO:

Chemistry General requirements for undergraduate major	Chemistry General requirements for undergraduate major
---	---

<p>Students majoring in chemistry must earn grades of C or better in all courses prescribed for this curriculum, as outlined below. A total of 124 credit hours are required for graduation. The BA program is obtained by following the curriculum for the BS degrees with the additional foreign language requirement of the College of Arts and Sciences .</p>	<p>Students majoring in chemistry must earn grades of C or better in all courses prescribed for this curriculum, as outlined below. A total of <u>120</u> credit hours are required for graduation. The BA program is obtained by following the curriculum for the BS degrees with the additional foreign language requirement of the College of Arts and Sciences .</p>
--	--

RATIONALE: To allow degree programs to reduce from 124 to 120 credit hours consistent with new Kansas Board of Regents guidelines. The 4 credit hours to be removed from the Arts and Sciences degree requirements will come from electives, not from the college or departmental requirements.

IMPACT: There will be no significant effect.

EFFECTIVE DATE: Fall 2011

College of Arts and Sciences

FROM:

TO:

<p>Degree Requirements</p> <p>At least 124 credit hours are required for graduation. (Students who entered K-State before the fall of 2003 require only 120 hours for graduation.)</p> <p>Courses numbered below 100 may not be applied toward a degree. In addition to the university's limit on credits for extracurricular work, no more than 4 credit hours in lifetime sports and exercise activity classes may be applied toward a degree.</p> <p>Common degree requirements</p> <p>(Three courses, 8 credit hours minimum)</p> <p>Purpose: to give students practice in oral presentation and in writing and analyzing expository and argumentative prose.</p> <table border="1" data-bbox="131 1839 740 1913"> <thead> <tr> <th>Course</th> <th>Course Title</th> <th>Credit hours</th> </tr> </thead> <tbody> </tbody> </table>	Course	Course Title	Credit hours	<p>Degree Requirements</p> <p>At least <u>120</u> credit hours are required for graduation.</p> <p>Courses numbered below 100 may not be applied toward a degree. In addition to the university's limit on credits for extracurricular work, no more than 4 credit hours in lifetime sports and exercise activity classes may be applied toward a degree.</p> <p>Common degree requirements</p> <p>(Three courses, 8 credit hours minimum)</p> <p>Purpose: to give students practice in oral presentation and in writing and analyzing expository and argumentative prose.</p> <table border="1" data-bbox="773 1839 1365 1913"> <thead> <tr> <th>Course</th> <th>Course Title</th> <th>Credit hours</th> </tr> </thead> <tbody> </tbody> </table>	Course	Course Title	Credit hours
Course	Course Title	Credit hours					
Course	Course Title	Credit hours					

ENGL 100	Expository Writing I	3
ENGL 200	Expository Writing II	3
COMM 105 or	Public Speaking IA or	2
COMM 106	Public Speaking I	3

Bachelor of Arts and Bachelor of Sciences

College of Arts and Sciences basic requirements

The aim of these requirements is to provide breadth in the major areas of knowledge outside of the student’s field of specialization. Introductory and intermediate-level courses are available in departments in humanities, social sciences, and natural sciences. Basic requirements are to be fulfilled with courses chosen by students in consultation with their advisor. The requirement in the humanities enables students to appreciate and understand creative and conceptual human endeavor.

The requirement in the social sciences improves the student’s ability to analyze and understand human social systems. The requirement in the natural sciences develops the student’s knowledge of the principles of scientific method as they are applied in the life and physical science.

Up to two courses from one department may be used to fulfill the distribution requirements for humanities and the social sciences. They may be used at the same time to count towards the student’s major. No course may be used to satisfy more than one specific requirement for humanities and social sciences. Only courses taken for 2 or more credit hours satisfy these requirements; courses in excess of 5 credit hours count as two courses.

At least ~~124~~ credit hours are required for graduation. (~~Students who entered K-State before the fall of 2003 require only 120 hours for graduation.~~)

ENGL 100	Expository Writing I	3
ENGL 200	Expository Writing II	3
COMM 105 or	Public Speaking IA or	2
COMM 106	Public Speaking I	3

Bachelor of Arts and Bachelor of Sciences

College of Arts and Sciences basic requirements

The aim of these requirements is to provide breadth in the major areas of knowledge outside of the student’s field of specialization. Introductory and intermediate-level courses are available in departments in humanities, social sciences, and natural sciences. Basic requirements are to be fulfilled with courses chosen by students in consultation with their advisor. The requirement in the humanities enables students to appreciate and understand creative and conceptual human endeavor.

The requirement in the social sciences improves the student’s ability to analyze and understand human social systems. The requirement in the natural sciences develops the student’s knowledge of the principles of scientific method as they are applied in the life and physical science.

Up to two courses from one department may be used to fulfill the distribution requirements for humanities and the social sciences. They may be used at the same time to count towards the student’s major. No course may be used to satisfy more than one specific requirement for humanities and social sciences. Only courses taken for 2 or more credit hours satisfy these requirements; courses in excess of 5 credit hours count as two courses.

At least 120 credit hours are required for graduation.

RATIONALE: To allow degree programs to reduce from 124 to 120 credit hours consistent with new Kansas Board of Regents guidelines. The 4 credit hours to be removed from the Arts and Sciences degree requirements will come from electives, not from the college or departmental requirements.

IMPACT: There will be no significant effect.

EFFECTIVE DATE: Fall 2011

Clinical Laboratory Science (Medical Technology)

FROM:

In addition to the general requirements for a bachelor's degree in the College of Arts and Sciences, the following courses are required:

Pre-clinical courses

BIOCH 521 – General Biochemistry **Credits:(3)**

~~BIOCH 522 – Gen. Biochemistry Lab **Credits:(2)**~~

_____ or

~~CHM 371 – Chemical Analysis **Credits:(4)**~~

CHM 210 – Chemistry I **Credits:(4)**

CHM 230 – Chemistry II **Credits:(4)**

CHM 350 – Gen. Organic Chemistry **Credits:(3)**

CHM 351 – Gen. Organic Chm Lab **Credits:(2)**

BIOL 198 – Principles of Biology **Credits:(4)**

BIOL 455 - Microbiology **Credits:(4)**

BIOL 670 – Immunology **Credits:(4)**

MATH 100 – College Algebra **Credits:(3)**

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

_____ or

STAT 340 – Biometrics **Credits:(3)**

_____ or

STAT 350 – Business and Economic Statistics I

Credits:(3)

Choose two of the following:

~~BIOL 340 – Structure and Function of the Human Body~~

~~**Credits:(8)**~~

BIOL 530- Pathogenic Microbiology **Credits:(3)**

BIOL 545 – Human Parasitology **Credits:(3)**

_____ and

~~BIOL 546 – Human Parasitology Lab **Credits:(1)**~~

TO:

In addition to the general requirements for a bachelor's degree in the College of Arts and Sciences, the following courses are required:

Pre-clinical courses

BIOCH 521 – General Biochemistry **Credits:(3)**

BIOCH 522- Gen. Biochemistry Lab **Credits:(2)**

(recommended, not required)

CHM 210 – Chemistry I **Credits:(4)**

CHM 230 – Chemistry II **Credits:(4)**

CHM 350 – Gen. Organic Chemistry **Credits:(3)**

CHM 351 – Gen. Organic Chm Lab **Credits:(2)**

BIOL 198 – Principles of Biology **Credits:(4)**

BIOL 340 – Structure and Function of the Human Body

Credits:(4-8)

_____ (only physiology required)

BIOL 450 – Modern Genetics **Credits:(4)**

BIOL 455 - Microbiology **Credits:(4)**

BIOL 670 – Immunology **Credits:(4)**

MATH 100 – College Algebra **Credits:(3)**

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

_____ or

STAT 340 – Biometrics **Credits:(3)**

_____ or

STAT 350 – Business and Economic Statistics I

Credits:(3)

Choose one of the following:

BIOL 541 – Cell Biology **Credits:(3)**

BIOL 609 - Cellular and Molecular Biology

Credits:(3)

BIOL 545 – Human Parasitology **Credits:(3)**

BIOL 546 – Human Parasitology Lab. **Credits:(1)**

_____ (recommended, not required)

BIOL 530 – Pathogenic Microbiology **Credits:(3)**

BIOL 730 – General Virology **Credits:(3)**

PHYS 113 – General Physics I **Credits:(4)**

<p>The clinical laboratory science curriculum requires 94 semester hours of preclinical courses and 10 to 18 months at one of the affiliate clinical programs in Kansas City. Admission to the clinical portion of the training is by application; students are expected to have a minimum GPA of 2.0 to 2.5 for both overall work and for required science courses. All of the work for the bachelor's degree must be complete before the student is allowed to sit for the certification examination.</p>	<p>The clinical laboratory science curriculum requires 94 semester hours of preclinical courses <u>plus 30 credits obtained through a 10 to 18 month clinical rotation at one of the affiliate hospitals in Kansas City.</u> Admission to the clinical portion of the training is by application <u>and acceptance not a given.</u> Students are expected to have a minimum GPA of 2.0 to 2.5 for both overall work and for the required science courses. All of the requirements for the bachelor's degree must be complete before the student is allowed to sit for the certification examination.</p>
--	--

RATIONALE: The directors of the two KSU affiliate hospitals, that offer the clinical rotation for KSU's CLS degree, have indicated specifically that Genetics should be a required class. They have also indicated that the professional programs only need physiology not anatomy/physiology. They further provided a list of recommended classes in order of preference. These curriculum changes were a result of a collaborative effort between all the Kansas programs that offer a degree in CLS. Clinical Laboratory Science professionals are so needed in the medical community that the Kansas CLS programs are making a collective effort to have similar prerequisites so students have a broader chance of being accepted to a CLS program.

IMPACT: None

EFFECTIVE DATE: Fall 2011

Pre-Occupational Therapy

FROM:

TO:

<p>PRE-OCCUPATIONAL THERAPY</p> <hr/> <p><i>Pre-occupational therapy is not a degree-granting program. Individual advising is strongly recommended.</i></p> <p>Program requirements</p> <hr/> <p>The pre-occupational therapy curriculum prepares students for application to the master's program in occupational therapy at the University of Kansas Medical Center. Successful completion of 90 semester hours is required before entering.</p> <ul style="list-style-type: none"> • BIOL 198 - Principles of Biology Credits: (4) • BIOL 340 - Structure and Function of the 	<p>PRE-OCCUPATIONAL THERAPY</p> <hr/> <p><i>Pre-occupational therapy is not a degree-granting program. Individual advising is strongly recommended.</i></p> <p>Program requirements</p> <hr/> <p>The pre-occupational therapy curriculum prepares students for application to the master's program in occupational therapy at the University of Kansas Medical Center. Successful completion of 90 semester hours is required before entering.</p> <ul style="list-style-type: none"> • BIOL 198 - Principles of Biology Credits:
--	--

Human Body Credits: (8)

- ENGL 100 - Expository Writing I Credits: (3)
- ENGL 200 - Expository Writing II Credits: (3)
- A third English course transferable at 200 level or above **Credits: (3)**
- MATH 100 - College Algebra Credits: (3)
- PSYCH 110 - General Psychology Credits: (3)
- PSYCH 505 - Abnormal Psychology Credits: (3)

Choose one from the following:

- COMM 106 - Public Speaking I Credits: (3)
- or
- COMM 322 - Interpersonal Communication Credits: (3)

Choose one from the following:

- FSHS 110 - Introduction to Human Development Credits: (3)
- or
- PSYCH 520 - Life Span Personality Development Credits: (3)

Choose one from the following:

- PHILO 130 - Introduction to Moral Philosophy Credits: (3)
- or
- PHILO 365 - Medical Ethics Credits: (3)

Choose one from the following:

- ANTH 200 - Introduction to Cultural Anthropology Credits: (3)
- or
- ANTH 204 - A General Education Introduction to Cultural Anthropology Credits: (3)
- or
- SOCIO 211 - Introduction to Sociology Credits: (3)

Choose one from the following:

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

(4)

- BIOL 340 - Structure and Function of the Human Body Credits: (8)
- ENGL 100 - Expository Writing I Credits: (3)
- ENGL 200 - Expository Writing II Credits: (3)
- A third English course transferable at 200 level or above **Credits: (3)**
- MATH 100 - College Algebra Credits: (3)
- PSYCH 110 - General Psychology Credits: (3)
- PSYCH 505 - Abnormal Psychology Credits: (3)

Choose one from the following:

- COMM 106 - Public Speaking I Credits: (3)
- or
- COMM 322 - Interpersonal Communication Credits: (3)

Choose one from the following:

- FSHS 110 - Introduction to Human Development Credits: (3)
- or
- PSYCH 520 - Life Span Personality Development Credits: (3)

Choose one from the following:

- PHILO 130 - Introduction to Moral Philosophy Credits: (3)
- or
- PHILO 365 - Medical Ethics Credits: (3)

Choose one from the following:

- ANTH 200 - Introduction to Cultural Anthropology Credits: (3)
- or
- ANTH 204 - A General Education Introduction to Cultural Anthropology Credits: (3)
- or
- SOCIO 211 - Introduction to Sociology Credits: (3)

Choose one from the following:

<ul style="list-style-type: none"> • STAT 350 - Business and Economic Statistics I Credits: (3) <p>Restricted electives (12 credit hours)</p> <hr/> <p>Four courses/electives chosen from complementary disciplines with a focus on behavioral and/or social sciences such as, but not limited to, psychology, sociology, family studies, special education, community health/wellness, and multicultural studies.</p> <p>General electives</p> <hr/> <p>Elective coursework must bring the prerequisite coursework to a total of 90 credit hours. General electives are the discretion of the applicant. All applicants are encouraged to develop their program readiness in the areas of biological sciences, social sciences, diversity, and interpersonal dynamics. Suggested courses include, but are not limited to, multicultural classes, foreign language, sign language, kinesiology, technical or professional writing, sociology or psychology relating to family dynamics, gerontology, and additional humanities of interest to the students.</p> <p>Note</p> <hr/> <p><i>Since prerequisites may change and the requirements of other occupational therapy programs will vary, consultation with a health professions advisor is strongly recommended.</i></p> <p>For more information go to K-State Pre-health.</p>	<ul style="list-style-type: none"> • STAT 325 - Introduction to Statistics Credits: (3) • or • STAT 350 - Business and Economic Statistics I Credits: (3) <p>General electives</p> <hr/> <p>Elective coursework must bring the prerequisite coursework to a total of 90 credit hours. General electives are the discretion of the applicant. All applicants are encouraged to develop their program readiness in the areas of biological sciences, social sciences, diversity, and interpersonal dynamics. Suggested courses include, but are not limited to, multicultural classes, foreign language, sign language, kinesiology, technical or professional writing, sociology or psychology relating to family dynamics, gerontology, and additional humanities of interest to the students.</p> <p>Note</p> <hr/> <p><i>Since prerequisites may change and the requirements of other occupational therapy programs will vary, consultation with a health professions advisor is strongly recommended.</i></p> <p>For more information go to K-State Pre-health.</p>
--	---

RATIONALE: The School of Occupational Therapy at the University of Kansas Medical Center no longer requires the restricted electives.

IMPACT: None

EFFECTIVE DATE: Fall 2011

Journalism and Mass Communications

FROM:

TO:

Becoming a major

To become a major, a student must have a ~~2.5~~ GPA based on at least 30 credit hours at the 100-level or higher. ~~MC 110 with a grade of C or higher must be completed. Students must pass the School's Composition Skills Tests (CST) prior to applying to be a major. Students who initially fail the CST may retake the exam up to two additional times during regularly scheduled examination periods.~~

~~Transfer students must have completed at least 30 credit hours at the 100 level or higher with a minimum 2.5 GPA are eligible to apply for admission to the School during their first semester upon successful completion of the CST and upon completion of a transfer course equivalent to MC 110 with a grade of C or better.~~

~~Students with a minimum 2.5 GPA transferring fewer than 30 credit hours to K-State must complete enough K-State credit hours at the 100 level or above to total 30 credit hours, and they must achieve a minimum 2.5 GPA on K-State coursework in order to be considered for admission. A passing CST score is required, and MC 110 (or its transferable equivalent) must be completed with a grade of C or better.~~

~~Students with a transfer GPA below 2.5 GPA who bring in 30 or more credit hours must earn a 2.5 GPA on at least 15 credit hours above the 100 level at K-State. MC 110 (or its transferable equivalent) must be completed with a grade of C or better, and the CST must be completed with a passing score in order to be considered for admission.~~

~~Students without the requisite 2.5 GPA, and who have fewer than 30 transfer credit hours, must complete 30 K-State credit hours and achieve a 2.5 GPA, pass the CST, and receive credit for MC 110 or an equivalent class with a grade of C or better in order to be considered for admission.~~

Admission to the major will be based on academic achievement, writing, skills, and promise for success in the major. To apply, a student must submit an application packet to the school by September 15 or March 15. The application forms may be obtained from the School's website. Students who are not admitted after a second application should meet with the pre-major advisor to discuss academic options.

While awaiting eligibility to become a major, all freshman and new transfer students from other institutions are eligible to be pre-majors and enroll in Mass Communication in Society (MC 110), which is

Becoming a major

To become a major, a student must have a 2.0 GPA based on at least 30 credit hours at the 100-level or higher. MC 110 or equivalent must be completed.

Admission to the major will be based on academic achievement, writing, skills, and promise for success in the major. To apply, a student must submit an application packet to the school by September 15 or March 15. The application forms may be obtained from the School's website. Students who are not admitted after a second application should meet with the pre-major advisor to discuss academic options.

While awaiting eligibility to become a major, all freshman and new transfer students from other institutions are eligible to be pre-majors and enroll in Mass Communication in Society (MC 110), which is the required first course in the major. Other courses open to pre-majors include: Journalism in a Free Society (MC 111), Web Communication in Society (MC 112), Principles of Advertising (MC 120), Fundamentals of Public Relations (MC 180), and Visual Communication in Mass Media (MC 210). Enrollment is restricted in other courses in the major.

Students may take restricted courses and advanced courses *only* if they meet the prerequisites. Students who expect to fulfill one or more prerequisites in a current semester may provisionally enroll on the expectation they will be eligible to take the course the following semester.

<p>the required first course in the major. Other courses open to pre-majors include: Journalism in a Free Society (MC 111), Web Communication in Society (MC 112), Principles of Advertising (MC 120), Fundamentals of Public Relations (MC 180), and Visual Communication in Mass Media (MC 210). Enrollment is restricted in other courses in the major.</p> <p>Students may take restricted courses and advanced courses <i>only</i> if they meet the prerequisites. Students who expect to fulfill one or more prerequisites in a current semester may provisionally enroll on the expectation they will be eligible to take the course the following semester.</p>	
--	--

RATIONALE: To streamline the undergraduate admission to the major process and allow use of criteria for admission that may be better indicators of potential success in journalism and mass communication than GPA and Composition Skills Test (CST) score. The GPA requirement is set to match the minimum required GPA by both the college and the university.

IMPACT: None

EFFECTIVE DATE: Fall 2011

International Studies

FROM:

TO:

	<p>General requirements for undergraduate major</p> <p>A total of 124 credit hours are required for graduation. The BS program is obtained by following the curriculum of the College of Arts and Sciences.</p> <p>Students who complete the secondary major in international studies are expected to include the following within their areas of knowledge or competency: speaking capability in a foreign language; basic geographic knowledge of the world; ability to understand and analyze cultures other than their own; some understanding of developmental processes; some understanding of international relations and processes of interaction; and some integration of their program of study into a meaningful and coherent whole. Please check the website for any program changes or announcements.</p>
--	---

RATIONALE: The International Studies secondary major is requiring at least 124 credit hours for graduation with a B.S. degree.

IMPACT: None

EFFECTIVE DATE: Fall 2011

Latin American Studies

FROM:

TO:

	<p>General requirements for undergraduate major</p> <p>A total of 124 credit hours are required for graduation. The BS program is obtained by following the curriculum of the College of Arts and Sciences.</p> <p>Courses approved for the secondary major in Latin American studies are found on the website. The website listing is revised each semester as new courses are added or changed and others are removed from the university curriculum.</p>
--	--

RATIONALE: The Latin American Studies secondary major is requiring at least 124 credit hours for graduation with a B.S. degree.

IMPACT: None

EFFECTIVE DATE: Fall 2011

Kinesiology

FROM:

TO:

	<p>General requirements for undergraduate major</p> <p>A total of 124 credit hours are required for graduation. The BA/BS program is obtained by following the curriculum of the College of Arts and Sciences.</p> <p>Kinesiology majors must take a minimum of 35 kinesiology credit hours that include 17 credit hours from the lower-level core, 12 credit hours in an emphasis area, and 6 credit hours from other elective</p>
--	--

	<p>kinesiology courses at the 300 level or above.</p> <p>A minimum grade of C and GPA of 2.2 are required for all kinesiology courses meeting degree requirements.</p>
--	--

RATIONALE: The Kinesiology Department is requiring at least 124 credit hours for graduation with a B.S. or B.A. degree.

IMPACT: None

EFFECTIVE DATE: Fall 2011

Music (BA)

FROM:	TO:
Music BA	Music BA
Total credit hours required for graduation (124)	Total credit hours required for graduation (120)
<hr/>	<hr/>
(Students who entered K-State before the fall of 2003 require only 120 credit hours for graduation)	

RATIONALE: To allow degree programs to reduce from 124 to 120 credit hours consistent with new Kansas Board of Regents guidelines. The 4 credit hours to be removed from the Arts and Sciences degree requirements will come from electives, not from the college or departmental requirements.

IMPACT: There will be no significant effect.

EFFECTIVE DATE: Fall 2011

Sociology, Anthropology and Social Work (Social Work B.S./B.A.)

FROM:

TO:

Social Work

Social Work

A student earning a BA or BS in social work must complete ~~124~~ credit hours including SOCWK 100 Social Work: The Helping Profession; 47 additional credit hours of major courses; and 19 credit hours of tool and related courses; and STAT 325.

A student earning a BA or BS in social work must complete 120 credit hours including SOCWK 100 Social Work: The Helping Profession; 47 additional credit hours of major courses; and 19 credit hours of tool and related courses; and STAT 325.

RATIONALE: To allow degree programs to reduce from 124 to 120 credit hours consistent with new Kansas Board of Regents guidelines. The 4 credit hours to be removed from the Arts and Sciences degree requirements will come from electives, not from the college or departmental requirements.

IMPACT: There will be no significant effect.

EFFECTIVE DATE: Fall 2011

COLLEGE OF ENGINEERING

COURSE CHANGES

Computing and Information Sciences

- ADD:** CIS 115 Introduction to Computing Science. (3) A survey of the discipline of Computing Science and its interaction with other disciplines, incorporating historical development, theories, and tools of Computing Science (algorithm design and programming). Topics include: mechanical computers, digital computers, bioinformatics, microcontrollers, robotics, security, scientific computing, simulation, and web technologies.
- Prerequisites:** None.
- When Offered:** Fall, Spring.
- Rationale:** This course is intended to be a collegiate first-experience with the field of computing, exploring the discipline of computing science and how and where it overlaps with other disciplines and our everyday lives. It espouses a broad approach intended to expose students to touch upon the full breadth of modern computing without needing a rigorous comprehension of computing theory. We will use an active learning model to teach both the discipline of Computing Science and the application of the tools of Computing Science – algorithms to create, describe, and transform information expressed in program code in a manner approachable by the average college freshman.
- This course addresses a gap in our course offerings, between our computer usage courses (the 10X offerings) and our Fundamentals of Software Design course (CIS 200). It is intended to orient students to the discipline of Computing Science, which is often confused with simply ‘working with computers’. It teaches basic algorithmic thinking and problem solving within an active learning context. It explores the history of Computing Science and the underlying sciences and technologies involved in current and future computing devices. It also explores the relationship between computing and engineering, science, and artistic disciplines.
- The course is also intended to serve as a general education course for the broader university student body. The two K-State Eight tags we will be focusing on are Empirical and Quantitative Reasoning and Historical Perspectives.
- Impact:** None.
- Effective:** Fall 2011.
- Add:** CIS 526 Web Interface Design. (3) Fundamental principles and best practices of interface design, web service design, advanced web interfaces, web development frameworks, web standards, and accessibility issues.
- Prerequisites:** CIS 501, CMST 135.

When Offered: Spring.

Rationale: Web design has become an increasingly large industry, and one many of our students are very interested in (and one which many of our graduates are working in), yet we do not currently have strong support for teaching web design – only for the underlying technologies. A vital aspect of good web design is the user interface (often called the “client” or “presentation layer”). This proposed course helps to meet that need, and will be a required course for the Information Systems degree.

User interface design isn’t just for web development, however – it is just as important in any piece of software requiring communication with humans. The concepts taught in this course will apply equally well to any software development effort, and therefore will be a valuable technical elective for our Computer Science students. As a bonus, students are also exposed to well-developed standards, limited resource environments, and incremental, client-centric design methodologies.

Impact: Any student taking this course will need to have taken CMST 135. We have been in communication with the Dept. of Engineering Technology regarding requiring CMST 135 for our IS degree. We anticipate negligible additional impact on that course.

Effective: Fall 2011.

ADD: CIS 536 Introduction to Computer Graphics

Credits: 3

Description: Introduction to computer graphics for undergraduate students. Mathematical foundations (e.g., linear, affine, and projective transformations) and fundamental topics in realistic rendering: view normalization, clipping and culling, scan conversion of lines and polygons, shading and illumination, texture mapping, user interfaces, picking, and collision handling. Intermediate topics include shaders, procedural textures, particle systems, basics of animation, fractals, color theory, and ray tracing. Not available for credit to students with credit in CIS 636. 3 hrs lec a week.

Prerequisites: CIS 308 and either MATH 205 or MATH 220

When Offered: Spring

Rationale: CIS 636 is a first course in computer graphics for graduate and upper-division undergraduates. However, it has been difficult to meet the specific needs of both undergraduate and graduate students with the same course. Adding this course will allow us to tailor this course for undergraduate students and to tailor 636 for graduate students, though both will be introductory courses.

Impact: NONE

Effective Date: Fall 2011

ADD: CIS 585 Game Engine Design.

Credits: 3.

Description: Current practices of game engine development. The game engine as a soft real-time multi-agent simulation. Three-dimensional graphics and animation techniques, scene management, physics simulation, event systems, resource management, and network game architectures. Design and prototyping of a general-use game engine.

Prerequisites: CIS 580 and MATH 551.

When offered: Spring.

Rationale: This course serves as a follow-up to our CIS 580 – Fundamentals of Game Programming course. While the Fundamentals course focuses on the data structures, algorithms, and techniques used in game programming, this course focuses on bringing those foundations together to construct a game engine, which is essentially a soft, real-time multi-agent simulation.

Impact: None.

Effective: Spring 2012.

CURRICULUM CHANGES

Architecture and Construction Science & Management

Architectural Engineering (PARE)
Proposed Curriculum Revision

Effective Date: Fall 2011

DROP: Upper Level Humanities/Social Science Electives 6 Cr. Hrs.

ADD: Humanities/Social Science Electives 6 Cr. Hrs.

Retain total credit hours required for B.S. Degree at 158 credit hours.

Revise notation at bottom of curriculum as follows:

Humanities and Social Science electives are to be selected from the ~~approved catalog list of UGE courses (see Engineering UGE course requirements)~~ College of Engineering Humanities and Social Science Elective Course List approved by the College of Engineering. Students should select these courses as needed to complete the requirements of the K-State 8 General Education program.

<p>Bachelor's degree requirements</p> <p>Pre-professional program (PARE)</p> <hr/> <p>Freshman year</p> <hr/> <p>First semester (15 credit hours)</p> <hr/> <ul style="list-style-type: none"> • ARE 020 - Architectural Engineering Seminar Credits: (0) • ARE 100 - Architectural Engineering Orientation Credits: (1) • CHM 210 - Chemistry I Credits: (4) • DEN 210 - History of Building and Construction Credits: (3) • GEOL 100 - Earth in Action Credits: (3) • MATH 220 - Analytic Geometry and Calculus I Credits: (4) <p>Second semester (16 credit hours)</p> <hr/> <ul style="list-style-type: none"> • ARE 020 - Architectural Engineering Seminar Credits: (0) • BIOL 198 - Principles of Biology Credits: (4) • or • CHM 230 - Chemistry II Credits: (4) • CNS 320 - Construction Materials Credits: (2) • ECON 110 - Principles of Macroeconomics Credits: (3) • ENGL 100 - Expository Writing I Credits: (3) • MATH 221 - Analytic Geometry and Calculus II Credits: (4) <p>Sophomore year</p> <hr/> <p>Third semester (16 credit hours)</p> <hr/> <ul style="list-style-type: none"> • ARE 020 - Architectural Engineering Seminar Credits: (0) • CNS 200 - Computer Applications in Engineering and Construction Credits: (2) • COMM 105 - Public Speaking IA Credits: (2) • ENGL 200 - Expository Writing II Credits: (3) • MATH 222 - Analytic Geometry and Calculus III Credits: (4) • PHYS 213 - Engineering Physics I Credits: (5) <p>Fourth semester (15 credit hours)</p> <hr/> <ul style="list-style-type: none"> • ARE 020 - Architectural Engineering Seminar Credits: (0) 	<p>Bachelor's degree requirements</p> <p>Pre-professional program (PARE)</p> <hr/> <p>Freshman year</p> <hr/> <p>First semester (15 credit hours)</p> <hr/> <ul style="list-style-type: none"> • ARE 020 - Architectural Engineering Seminar Credits: (0) • ARE 100 - Architectural Engineering Orientation Credits: (1) • CHM 210 - Chemistry I Credits: (4) • DEN 210 - History of Building and Construction Credits: (3) • GEOL 100 - Earth in Action Credits: (3) • MATH 220 - Analytic Geometry and Calculus I Credits: (4) <p>Second semester (16 credit hours)</p> <hr/> <ul style="list-style-type: none"> • ARE 020 - Architectural Engineering Seminar Credits: (0) • BIOL 198 - Principles of Biology Credits: (4) • or • CHM 230 - Chemistry II Credits: (4) • CNS 320 - Construction Materials Credits: (2) • ECON 110 - Principles of Macroeconomics Credits: (3) • ENGL 100 - Expository Writing I Credits: (3) • MATH 221 - Analytic Geometry and Calculus II Credits: (4) <p>Sophomore year</p> <hr/> <p>Third semester (16 credit hours)</p> <hr/> <ul style="list-style-type: none"> • ARE 020 - Architectural Engineering Seminar Credits: (0) • CNS 200 - Computer Applications in Engineering and Construction Credits: (2) • COMM 105 - Public Speaking IA Credits: (2) • ENGL 200 - Expository Writing II Credits: (3) • MATH 222 - Analytic Geometry and Calculus III Credits: (4) • PHYS 213 - Engineering Physics I Credits: (5) <p>Fourth semester (15 credit hours)</p> <hr/> <ul style="list-style-type: none"> • ARE 020 - Architectural Engineering Seminar Credits: (0)
---	---

- [ART 100 - 2- Dimensional Design](#) Credits: (3)
- or
- [ART 190 - Drawing I](#) Credits: (3)
- or
- [ART 200 - 3- Dimensional Design](#) Credits: (3)
- [CE 333 - Statics](#) Credits: (3)
- [MATH 240 - Elementary Differential Equations](#) Credits: (4)
- [PHYS 214 - Engineering Physics II](#) Credits: (5)

Professional program (ARE)

Junior year

Fifth semester (17 credit hours)

- [ARE 020 - Architectural Engineering Seminar](#) Credits: (0)
- [ARE 532 - Lighting Systems Design](#) Credits: (2)
- [CE 212 - Elementary Surveying Engineering](#) Credits: (3)
- [CE 533 - Mechanics of Materials](#) Credits: (3)
- [CE 534 - Mechanics of Materials Laboratory](#) Credits: (1)
- [CNS 321 - Construction Techniques and Detailing](#) Credits: (3)
- [IMSE 530 - Engineering Economic Analysis](#) Credits: (2)
- enroll in 2 credit hours
- [ME 513 - Thermodynamics I](#) Credits: (3)

Sixth semester (17 credit hours)

- [ARE 020 - Architectural Engineering Seminar](#) Credits: (0)
- [ARE 310 - Introduction to AutoCAD](#) Credits: (1)
- [ARE 522 - Loading and Load Paths in Buildings](#) Credits: (2)
- [ARE 534 - Thermal Systems](#) Credits: (3)
- [CE 537 - Introduction to Structural Analysis](#) Credits: (3)
- [CNS 325 - Construction Drawings](#) Credits: (3)
- [ECE 519 - Electric Circuits and Control](#) Credits: (4)
- [STAT 490 - Statistics for Engineers](#) Credits: (1)

Senior year

Seventh semester (17 credit hours)

- [ART 100 - 2- Dimensional Design](#) Credits: (3)
- or
- [ART 190 - Drawing I](#) Credits: (3)
- or
- [ART 200 - 3- Dimensional Design](#) Credits: (3)
- [CE 333 - Statics](#) Credits: (3)
- [MATH 240 - Elementary Differential Equations](#) Credits: (4)
- [PHYS 214 - Engineering Physics II](#) Credits: (5)

Professional program (ARE)

Junior year

Fifth semester (17 credit hours)

- [ARE 020 - Architectural Engineering Seminar](#) Credits: (0)
- [ARE 532 - Lighting Systems Design](#) Credits: (2)
- [CE 212 - Elementary Surveying Engineering](#) Credits: (3)
- [CE 533 - Mechanics of Materials](#) Credits: (3)
- [CE 534 - Mechanics of Materials Laboratory](#) Credits: (1)
- [CNS 321 - Construction Techniques and Detailing](#) Credits: (3)
- [IMSE 530 - Engineering Economic Analysis](#) Credits: (2)
- enroll in 2 credit hours
- [ME 513 - Thermodynamics I](#) Credits: (3)

Sixth semester (17 credit hours)

- [ARE 020 - Architectural Engineering Seminar](#) Credits: (0)
- [ARE 310 - Introduction to AutoCAD](#) Credits: (1)
- [ARE 522 - Loading and Load Paths in Buildings](#) Credits: (2)
- [ARE 534 - Thermal Systems](#) Credits: (3)
- [CE 537 - Introduction to Structural Analysis](#) Credits: (3)
- [CNS 325 - Construction Drawings](#) Credits: (3)
- [ECE 519 - Electric Circuits and Control](#) Credits: (4)
- [STAT 490 - Statistics for Engineers](#) Credits: (1)

Senior year

Seventh semester (17 credit hours)

- [ARE 020 - Architectural Engineering Seminar](#)
Credits: (0)
- [ARE 411 - Architectural Engineering Design](#)
Credits: (3)
- [ARE 528 - Reinforced Concrete Structures](#)
Credits: (3)
- [ARE 533 - Building Electrical Systems](#)
Credits: (3)
- [ARE 537 - Acoustic Systems](#) **Credits: (2)**
- [ENGL 415 - Written Communication for Engineers](#) **Credits: (3)**
- [ME 512 - Dynamics](#) **Credits: (3)**

Eighth semester (15 credit hours)

- *~~UGE~~ Humanities or Social Science Elective
(~~upper level~~) **Credits: (3)**
- [ARE 020 - Architectural Engineering Seminar](#)
Credits: (0)
- [ARE 524 - Steel Structures](#) **Credits: (3)**
- [ARE 536 - Plumbing/Fire Protection Systems Design](#) **Credits: (3)**
- [ARE 540 - Building Mechanical Systems](#)
Credits: (3)
- [ME 571 - Fluid Mechanics](#) **Credits: (3)**

Fifth year

Ninth semester (15 credit hours)

- *Complementary Elective **Credits: (3)**
- *Complementary Elective **Credits: (3)**
- Free Elective **Credits: (3)**
- [ARE 020 - Architectural Engineering Seminar](#)
Credits: (0)
- [ARE 590 - Integrated Building System Design](#)
Credits: (3)
- [CE 522 - Soil Mechanics I](#) **Credits: (3)**

Tenth semester (15 credit hours)

- *Complementary elective **Credits: (3)**
- *Complementary elective **Credits: (3)**
- *~~UGE~~ Humanities or Social Science Elective
(~~upper level~~) **Credits: (3)**
- [ARE 020 - Architectural Engineering Seminar](#)
Credits: (0)
- [ARE 539 - Architectural Engineering Management](#) **Credits: (3)**

- [ARE 020 - Architectural Engineering Seminar](#)
Credits: (0)
- [ARE 411 - Architectural Engineering Design](#)
Credits: (3)
- [ARE 528 - Reinforced Concrete Structures](#)
Credits: (3)
- [ARE 533 - Building Electrical Systems](#)
Credits: (3)
- [ARE 537 - Acoustic Systems](#) **Credits: (2)**
- [ENGL 415 - Written Communication for Engineers](#) **Credits: (3)**
- [ME 512 - Dynamics](#) **Credits: (3)**

Eighth semester (15 credit hours)

- *Humanities or Social Science Elective
Credits: (3)
- [ARE 020 - Architectural Engineering Seminar](#)
Credits: (0)
- [ARE 524 - Steel Structures](#) **Credits: (3)**
- [ARE 536 - Plumbing/Fire Protection Systems Design](#) **Credits: (3)**
- [ARE 540 - Building Mechanical Systems](#)
Credits: (3)
- [ME 571 - Fluid Mechanics](#) **Credits: (3)**

Fifth year

Ninth semester (15 credit hours)

- *Complementary Elective **Credits: (3)**
- *Complementary Elective **Credits: (3)**
- Free Elective **Credits: (3)**
- [ARE 020 - Architectural Engineering Seminar](#)
Credits: (0)
- [ARE 590 - Integrated Building System Design](#)
Credits: (3)
- [CE 522 - Soil Mechanics I](#) **Credits: (3)**

Tenth semester (15 credit hours)

- *Complementary elective **Credits: (3)**
- *Complementary elective **Credits: (3)**
- * Humanities or Social Science Elective
Credits: (3)
- [ARE 020 - Architectural Engineering Seminar](#)
Credits: (0)
- [ARE 539 - Architectural Engineering Management](#) **Credits: (3)**

Pre-professional program (PCNSM)	Pre-professional program (PCNSM)
Freshman year	Freshman year
Fall semester (13 credit hours)	Fall semester (13 credit hours)
<ul style="list-style-type: none"> • CNS 016 - Construction Seminar Credits: (0) • CNS 100 - Construction Science and Management Orientation Credits: (1) • COMM 105 - Public Speaking IA Credits: (2) • DEN 210 - History of Building and Construction Credits: (3) • ENGL 100 - Expository Writing I Credits: (3) • MATH 220 - Analytic Geometry and Calculus I Credits: (4) 	<ul style="list-style-type: none"> • CNS 016 - Construction Seminar Credits: (0) • CNS 100 - Construction Science and Management Orientation Credits: (1) • COMM 105 - Public Speaking IA Credits: (2) • DEN 210 - History of Building and Construction Credits: (3) • ENGL 100 - Expository Writing I Credits: (3) • MATH 220 - Analytic Geometry and Calculus I Credits: (4)
Spring semester (15 credit hours)	Spring semester (15 credit hours)
<ul style="list-style-type: none"> • UGE Humanities or Social Science Elective Credits: (3) • CE 212 - Elementary Surveying Engineering Credits: (3) • CNS 016 - Construction Seminar Credits: (0) • CNS 320 - Construction Materials Credits: (2) • ECON 110 - Principles of Macroeconomics Credits: (3) • PHYS 113 - General Physics I Credits: (4) 	<ul style="list-style-type: none"> • *Humanities or Social Science Elective Credits: (3) • CE 212 - Elementary Surveying Engineering Credits: (3) • CNS 016 - Construction Seminar Credits: (0) • CNS 320 - Construction Materials Credits: (2) • ECON 110 - Principles of Macroeconomics Credits: (3) • PHYS 113 - General Physics I Credits: (4)
Sophomore year	Sophomore year
Fall semester (15 credit hours)	Fall semester (15 credit hours)
<ul style="list-style-type: none"> • ACCTG 231 - Accounting for Business Operations Credits: (3) • CNS 016 - Construction Seminar Credits: (0) • CNS 200 - Computer Applications in Engineering and Construction Credits: (2) • CNS 231 - Statics A Credits: (3) • ENGL 200 - Expository Writing II Credits: (3) • PHYS 114 - General Physics II Credits: (4) 	<ul style="list-style-type: none"> • ACCTG 231 - Accounting for Business Operations Credits: (3) • CNS 016 - Construction Seminar Credits: (0) • CNS 200 - Computer Applications in Engineering and Construction Credits: (2) • CNS 231 - Statics A Credits: (3) • ENGL 200 - Expository Writing II Credits: (3) • PHYS 114 - General Physics II Credits: (4)
Professional program (CNSM)	Professional program (CNSM)
Spring semester (16 credit hours)	Spring semester (16 credit hours)
<ul style="list-style-type: none"> • UGE Humanities or Social Science Elective (Upper level) Credits: (3) • UGE Humanities or Social Science Elective 	<ul style="list-style-type: none"> • *-Humanities or Social Science Elective Credits: (3) • *-Humanities or Social Science Elective

<p>(Upper level) Credits: (3)</p> <ul style="list-style-type: none"> • CE 331 - Strength of Materials A Credits: (3) • CE 332 - Strength of Materials A Laboratory Credits: (1) • CNS 016 - Construction Seminar Credits: (0) • CNS 321 - Construction Techniques and Detailing Credits: (3) • CNS 330 - Site Construction Credits: (3) <p>Junior year</p> <hr/>	<p>Credits: (3)</p> <ul style="list-style-type: none"> • CE 331 - Strength of Materials A Credits: (3) • CE 332 - Strength of Materials A Laboratory Credits: (1) • CNS 016 - Construction Seminar Credits: (0) • CNS 321 - Construction Techniques and Detailing Credits: (3) • CNS 330 - Site Construction Credits: (3) <p>Junior year</p> <hr/>
<p>Fall semester (18 credit hours)</p> <hr/> <ul style="list-style-type: none"> • ARE 310 - Introduction to AutoCAD Credits: (1) • ARE 537 - Acoustic Systems Credits: (2) • CNS 016 - Construction Seminar Credits: (0) • CNS 325 - Construction Drawings Credits: (3) • CNS 522 - Theory of Structures Credits: (3) • CNS 534 - Heating and Air Conditioning Credits: (3) • CNS 536 - Water Supply and Plumbing Credits: (3) • *** STAT 350 - Business and Economic Statistics I Credits: (3) <p>Spring semester (18 credit hours)</p> <hr/>	<p>Fall semester (18 credit hours)</p> <hr/> <ul style="list-style-type: none"> • ARE 310 - Introduction to AutoCAD Credits: (1) • ARE 537 - Acoustic Systems Credits: (2) • CNS 016 - Construction Seminar Credits: (0) • CNS 325 - Construction Drawings Credits: (3) • CNS 522 - Theory of Structures Credits: (3) • CNS 534 - Heating and Air Conditioning Credits: (3) • CNS 536 - Water Supply and Plumbing Credits: (3) • *** STAT 350 - Business and Economic Statistics I Credits: (3) <p>Spring semester (18 credit hours)</p> <hr/>
<ul style="list-style-type: none"> • CNS 016 - Construction Seminar Credits: (0) • CNS 524 - Steel Construction Credits: (3) • CNS 535 - Electrical and Lighting Credits: (3) • CNS 540 - Construction Methods and Equipment Credits: (3) • CNS 542 - Ethics and Professional Standards Credits: (1) • CNS 650 - Construction Safety Credits: (2) • ENGL 417 - Written Communication for the Workplace Credits: (3) • *** MANGT 390 - Business Law I Credits: (3) <p>Senior year</p> <hr/>	<ul style="list-style-type: none"> • CNS 016 - Construction Seminar Credits: (0) • CNS 524 - Steel Construction Credits: (3) • CNS 535 - Electrical and Lighting Credits: (3) • CNS 540 - Construction Methods and Equipment Credits: (3) • CNS 542 - Ethics and Professional Standards Credits: (1) • CNS 650 - Construction Safety Credits: (2) • ENGL 417 - Written Communication for the Workplace Credits: (3) • *** MANGT 390 - Business Law I Credits: (3) <p>Senior year</p> <hr/>
<p>Fall semester (17 credit hours)</p> <hr/> <ul style="list-style-type: none"> • **Professional Elective Credits: (2) • CNS 016 - Construction Seminar Credits: (0) • CNS 523 - Timber Construction Credits: (2) • CNS 641 - Construction Estimating Credits: (4) • CNS 642 - Construction Management Credits: (3) 	<p>Fall semester (17 credit hours)</p> <hr/> <ul style="list-style-type: none"> • **Professional Elective Credits: (2) • CNS 016 - Construction Seminar Credits: (0) • CNS 523 - Timber Construction Credits: (2) • CNS 641 - Construction Estimating Credits: (4) • CNS 642 - Construction Management Credits: (3)

- [CNS 645 - Construction Scheduling and Cost Control](#) Credits: (3)
- [MANGT 420 - Management Concepts](#) Credits: (3)

Spring semester (18 credit hours)

-
- **Professional Elective Credits: (3)
 - **Management Elective (Labor) Credits: (3)
 - **Management Elective Credits: (3)
 - [CE 322 - Soil and Foundation Construction](#) Credits: (3)
 - [CNS 016 - Construction Seminar](#) Credits: (0)
 - [CNS 528 - Concrete and Masonry Construction](#) Credits: (3)
 - [CNS 660 - Construction Operations](#) Credits: (3)

Notes

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 advisors.

For additional information about the University General Education program, check the [requirements](#) specified by the [College of Engineering](#).

*Humanities and Social Science Electives are to be selected from the [approved catalog list of UGE courses](#) (see [Engineering UGE course requirements](#)).

**Management Electives and Professional Electives are to be selected from approved departmental lists.

***These courses in Statistics and Business & Management require Junior standing.

Total hours required for graduation (130)

- [CNS 645 - Construction Scheduling and Cost Control](#) Credits: (3)
- [MANGT 420 - Management Concepts](#) Credits: (3)

Spring semester (18 credit hours)

-
- **Professional Elective Credits: (3)
 - **Management Elective (Labor) Credits: (3)
 - **Management Elective Credits: (3)
 - [CE 322 - Soil and Foundation Construction](#) Credits: (3)
 - [CNS 016 - Construction Seminar](#) Credits: (0)
 - [CNS 528 - Concrete and Masonry Construction](#) Credits: (3)
 - [CNS 660 - Construction Operations](#) Credits: (3)

Notes

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 advisors.

For additional information about the University General Education program, check the [requirements](#) specified by the [College of Engineering](#).

*Humanities and Social Science Electives are to be selected from the [College of Engineering Humanities and Social Science Elective Course List approved by the College of Engineering](#). Students should select these courses as needed to complete the requirements of the [K-State 8 General Education program](#).

**Management Electives and Professional Electives are to be selected from approved departmental lists.

***These courses in Statistics and Business & Management require Junior standing.

Total hours required for graduation (130)

Chemical Engineering

From:

The departmental requirements below must be satisfied.

- 32 credit hours of electives are required, and they are to be selected in consultation with the student's advisor. All electives must be on the lists approved by the department or have the approval of the department head and must support the educational objectives of the chemical engineering program. Both the required and elective components of a student's overall program of study must meet UGE criteria. 17 credit hours of technical electives are required. These electives must include one chemistry/biochemistry/biology (3 credit hours) course, an advanced laboratory experience (2 credit hours), and a chemical engineering elective (3 credit hours). The remaining 6 credit hours of technical electives are to be chosen from courses identified as engineering topics, with at least one course selected from either analytical mechanics (both statics and dynamics must be represented) or circuits, fields, and electronics.
- 15 credit hours of social sciences and humanities electives are required. These courses are to be selected from the list approved by the College of Engineering. At least 6 hours of 300-level or higher UGE courses must be included within these 15 hours. All courses must be taken for a 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.

A grade of C or higher in each course within the chemical engineering core program is required for graduation.

To:

The departmental requirements below must be satisfied.

- 32 credit hours of electives are required, and they are to be selected in consultation with the student's advisor. All electives must be on the lists approved by the department or have the approval of the department head and must support the program educational objectives and student outcomes of the chemical engineering program. ~~Both the required and elective components of a~~ student's overall program of study must meet UGE university general education (K-State 8) criteria; both the required and elective components can contribute to satisfying the K-State 8 criteria. ~~17~~ 14 credit hours of technical electives are required. These electives must include one chemistry/biochemistry/biology (3 credit hours) course, an advanced laboratory experience (2 credit hours), and a chemical engineering elective (3 credit hours).

The remaining 6 credit hours of technical electives are to be chosen from courses identified as engineering topics, with at least one course selected from either analytical mechanics (both statics and dynamics must be represented) or circuits, fields, and electronics.

- 15 credit hours of social sciences and humanities electives are required. These courses are to be selected from the list approved by the College of Engineering. At least 6 credit hours of 300-level or higher ~~UGE~~ courses must be included within these 15 credit hours. All courses must be taken for a 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.

A grade of C or higher in each course within the chemical engineering core program is required for graduation.

Rationale:

The proposed changes will bring the elective requirements for the program into alignment with university general education (K-State 8) criteria and the elective requirements being proposed by the College of Engineering as a result of the changes in university policy.

Effective term for requested action:

Fall Semester 2011

Changes shown on following pages.

<p>Bachelor's degree requirements</p> <p>Freshman year</p> <hr/> <p>Fall semester (15 credit hours)</p> <hr/> <ul style="list-style-type: none"> Humanities/social science elective Credits: (3) CHE 015 - Engineering Assembly Credits: (0) CHE 110 - Current Topics in Chemical Engineering Credits: (1) ** CHM 210 - Chemistry I Credits: (4) ENGL 100 - Expository Writing I Credits: (3) MATH 220 - Analytic Geometry and Calculus I Credits: (4) <p>Spring semester (16 credit hours)</p> <hr/> <ul style="list-style-type: none"> Humanities/social science elective Credits: (3) CHE 015 - Engineering Assembly Credits: (0) ** CHM 230 - Chemistry II Credits: (4) COMM 105 - Public Speaking IA Credits: (2) ECON 110 - Principles of Macroeconomics Credits: (3) MATH 221 - Analytic Geometry and Calculus II Credits: (4) <p>Sophomore year</p> <hr/> <p>Fall semester (16 credit hours)</p> <hr/> <ul style="list-style-type: none"> CHE 015 - Engineering Assembly Credits: (0) * CHE 320 - Chemical Process Analysis Credits: (3) ** CHM 371 - Chemical Analysis Credits: (4) MATH 222 - Analytic Geometry and Calculus III Credits: (4) PHYS 213 - Engineering Physics I Credits: (5) <p>Spring semester (17 credit hours)</p> <hr/> <ul style="list-style-type: none"> CHE 015 - Engineering Assembly Credits: (0) CHE 354 - Basic Concepts in Materials Science and Engineering Credits: (1) CHE 355 - Fundamentals of Mechanical Properties Credits: (1) or CHE 356 - Fundamentals of Electrical Properties Credits: (1) * CHE 416 - Computational Techniques in Chemical Engineering Credits: (3) 	<p>Bachelor's degree requirements</p> <p>Freshman year</p> <hr/> <p>Fall semester (15 credit hours)</p> <hr/> <ul style="list-style-type: none"> Humanities/social science elective Credits: (3) CHE 015 - Engineering Assembly Credits: (0) CHE 110 - Current Topics in Chemical Engineering Credits: (1) ** CHM 210 - Chemistry I Credits: (4) ENGL 100 - Expository Writing I Credits: (3) MATH 220 - Analytic Geometry and Calculus I Credits: (4) <p>Spring semester (16 credit hours)</p> <hr/> <ul style="list-style-type: none"> Humanities/social science elective Credits: (3) CHE 015 - Engineering Assembly Credits: (0) ** CHM 230 - Chemistry II Credits: (4) COMM 105 - Public Speaking IA Credits: (2) ECON 110 - Principles of Macroeconomics Credits: (3) MATH 221 - Analytic Geometry and Calculus II Credits: (4) <p>Sophomore year</p> <hr/> <p>Fall semester (16 credit hours)</p> <hr/> <ul style="list-style-type: none"> CHE 015 - Engineering Assembly Credits: (0) * CHE 320 - Chemical Process Analysis Credits: (3) ** CHM 371 - Chemical Analysis Credits: (4) MATH 222 - Analytic Geometry and Calculus III Credits: (4) PHYS 213 - Engineering Physics I Credits: (5) <p>Spring semester (17 credit hours)</p> <hr/> <ul style="list-style-type: none"> CHE 015 - Engineering Assembly Credits: (0) CHE 354 - Basic Concepts in Materials Science and Engineering Credits: (1) CHE 355 - Fundamentals of Mechanical Properties Credits: (1) or CHE 356 - Fundamentals of Electrical Properties Credits: (1) * CHE 416 - Computational Techniques in Chemical Engineering Credits: (3)
---	---

- [CHM 531 - Organic Chemistry I](#) Credits: (3)
- [MATH 240 - Elementary Differential Equations](#) Credits: (4)
- [PHYS 214 - Engineering Physics II](#) Credits: (5)

Junior year

Fall semester (16 credit hours)

- ‡ Chemistry/biochemistry/biology 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)

Spring semester (15 credit hours)

- Technical elective Credits: (3)
- [CHE 015 - Engineering Assembly](#) Credits: (0)
- * [CHE 521 - Chemical Engineering Thermodynamics II](#) Credits: (3)
- * [CHE 531 - Transport Phenomena II](#) Credits: (3)
- * [CHE 535 - Transport Phenomena Laboratory](#) Credits: (3)
- [CHM 595 - Physical Chemistry II](#) Credits: (3)

Senior year

Fall semester (17 credit hours)

- Technical elective Credits: (3)
- UGE \geq 300 level humanities and social science elective Credits: (6)
- [CHE 015 - Engineering Assembly](#) Credits: (0)
- * [CHE 550 - Chemical Reaction Engineering](#) Credits: (3)
- * [CHE 560 - Separational Process Design](#) Credits: (3)
- * [CHE 570 - Chemical Engineering Systems Design I](#) Credits: (2)

Spring semester (16 credit hours)

- [CHM 531 - Organic Chemistry I](#) Credits: (3)
- [MATH 240 - Elementary Differential Equations](#) Credits: (4)
- [PHYS 214 - Engineering Physics II](#) Credits: (5)

Junior year

Fall semester (16 credit hours)

- ‡ Chemistry/biochemistry/biology 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)

Spring semester (15 credit hours)

- Technical elective Credits: (3)
- [CHE 015 - Engineering Assembly](#) Credits: (0)
- * [CHE 521 - Chemical Engineering Thermodynamics II](#) Credits: (3)
- * [CHE 531 - Transport Phenomena II](#) Credits: (3)
- * [CHE 535 - Transport Phenomena Laboratory](#) Credits: (3)
- [CHM 595 - Physical Chemistry II](#) Credits: (3)

Senior year

Fall semester (17 credit hours)

- Technical elective Credits: (3)
- UGE \geq 300 level humanities and social science elective Credits: (6)
- [CHE 015 - Engineering Assembly](#) Credits: (0)
- * [CHE 550 - Chemical Reaction Engineering](#) Credits: (3)
- * [CHE 560 - Separational Process Design](#) Credits: (3)
- * [CHE 570 - Chemical Engineering Systems Design I](#) Credits: (2)

Spring semester (16 credit hours)

- Chemical engineering elective **Credits:** (3)
- Unrestricted elective **Credits:** (3)
- [CHE 015 - Engineering Assembly](#) **Credits:** (0)
- * [CHE 542 - Unit Operations Laboratory](#) **Credits:** (3)
- [CHE 561 - Chemical Process Dynamics and Control](#) **Credits:** (3)
- * [CHE 571 - Chemical Engineering Systems Design II](#) **Credits:** (4)

Notes

*These courses form the chemical engineering core program.

**Honors Chemistry I ([CHM 220](#)) and Honors Chemistry II ([CHM 250](#)) may be taken instead of [CHM 210](#), [CHM 230](#), and [CHM 371](#). If this option is elected, two additional credit hours of technical electives are to be selected.

‡Chemistry/biochemistry/biology electives: Chemistry: Possible selections include Organic Chemistry II ([CHM 550](#)), Instrumental Analysis ([CHM 566](#)), and Physical Chemistry I ([CHM 585](#)). Biochemistry: Possible selections include General Biochemistry ([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 Cell Biology ([BIOL 541](#)).

§The advanced laboratory experience is to be a 2-credit-hour laboratory course selected from the following courses: Organic Chemistry Laboratory ([CHM 532](#)), Physical Methods Laboratory ([CHM 596](#)), General Biochemistry Laboratory ([BIOCH 522](#)), or Biochemistry I Laboratory ([BIOCH 756](#)).

The departmental requirements below must be satisfied.

- 32 credit hours of electives are required, and they are to be selected in consultation with the student's advisor. All electives must be on the lists approved by the department ~~or have the approval of the department~~ head and must support the educational objectives of the chemical engineering program. ~~Both the required and elective components~~ of a student's overall program of study must meet ~~UGE~~ criteria. ~~17~~ 14 credit hours of technical electives are required. These electives must include one chemistry/biochemistry/biology (3 credit hours) course, an advanced laboratory experience (2 credit hours), and a chemical engineering elective (3 credit hours). The remaining 6 credit hours of technical electives are to be chosen from courses

- Chemical engineering elective **Credits:** (3)
- Unrestricted elective **Credits:** (3)
- [CHE 015 - Engineering Assembly](#) **Credits:** (0)
- * [CHE 542 - Unit Operations Laboratory](#) **Credits:** (3)
- [CHE 561 - Chemical Process Dynamics and Control](#) **Credits:** (3)
- * [CHE 571 - Chemical Engineering Systems Design II](#) **Credits:** (4)

Notes

*These courses form the chemical engineering core program.

**Honors Chemistry I ([CHM 220](#)) and Honors Chemistry II ([CHM 250](#)) may be taken instead of [CHM 210](#), [CHM 230](#), and [CHM 371](#). If this option is elected, two additional credit hours of technical electives are to be selected.

‡Chemistry/biochemistry/biology electives: Chemistry: Possible selections include Organic Chemistry II ([CHM 550](#)), Instrumental Analysis ([CHM 566](#)), and Physical Chemistry I ([CHM 585](#)). Biochemistry: Possible selections include General Biochemistry ([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 Cell Biology ([BIOL 541](#)).

§The advanced laboratory experience is to be a 2-credit-hour laboratory course selected from the following courses: Organic Chemistry Laboratory ([CHM 532](#)), Physical Methods Laboratory ([CHM 596](#)), General Biochemistry Laboratory ([BIOCH 522](#)), or Biochemistry I Laboratory ([BIOCH 756](#)).

The departmental requirements below must be satisfied.

- 32 credit hours of electives are required, and they are to be selected in consultation with the student's advisor. All electives must be on the lists approved by the department head and must support the program educational objectives and student outcomes of the chemical engineering program. A student's overall program of study must meet university general education (K-State 8) criteria; both the required and elective components can contribute to satisfying the K-State 8 criteria. 14 credit hours of technical electives are required. These electives must include one chemistry/biochemistry/biology (3 credit hours) course, an advanced laboratory experience (2 credit hours), and a chemical engineering elective (3 credit hours). The remaining 6 credit hours of technical

identified as engineering topics, with at least one course selected from either analytical mechanics (both statics and dynamics must be represented) or circuits, fields, and electronics.

- 15 credit hours of social sciences and humanities electives are required. These courses are to be selected from the list approved by the [College of Engineering](#). At least 6 credit hours of 300-level or higher UGE courses must be included within these 15 credit hours. All courses must be taken for a 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.

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 advisors.

For additional information about the University General Education program, check the [requirements](#) specified by the [College of Engineering](#).

Humanities and Social Science Electives are to be selected from the [approved catalog list of UGE courses](#).

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)

electives are to be chosen from courses identified as engineering topics, with at least one course selected from either analytical mechanics (both statics and dynamics must be represented) or circuits, fields, and electronics.

- 15 credit hours of social sciences and humanities electives are required. These courses are to be selected from the list approved by the [College of Engineering](#). At least 6 credit hours of 300-level or higher courses must be included within these 15 credit hours. All courses must be taken for a 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.

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 advisors.

For additional information about the University General Education program, check the [requirements](#) specified by the [College of Engineering](#).

Humanities and Social Science electives are to be selected from the [list of courses approved by the College of Engineering](#). Students should select these courses as needed to complete the requirements of the K-State 8 General Education program.

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)

Department of Civil Engineering

From:

**General education humanities and general education social sciences electives are to be selected from [university general education courses](#) that are also on the engineering humanities and social sciences elective list and need not be taken in the order listed in the curriculum.

To:

**General education humanities and general education social sciences electives are to be selected from [general education courses \(K-State 8\)](#) that are also on the engineering humanities and social sciences elective list and need not be taken in the order listed in the curriculum.

Rationale: **Implementation** of K-State 8

Impact: None

Effective Date: Fall 2011

Curriculum in civil engineering (CE)	Curriculum in civil engineering (CE)
Freshman year	Freshman year
Fall semester (17 credit hours)	Fall semester (17 credit hours)
<ul style="list-style-type: none"> • CE 015 - Engineering Assembly Credits: (0) • CE 101 - Introduction to Civil Engineering Credits: (1) • CHM 210 - Chemistry I Credits: (4) • ECON 110 - Principles of Macroeconomics Credits: (3) • * ENGL 100 - Expository Writing I Credits: (3) • MATH 220 - Analytic Geometry and Calculus I Credits: (4) • ME 212 - Engineering Graphics Credits: (2) 	<ul style="list-style-type: none"> • CE 015 - Engineering Assembly Credits: (0) • CE 101 - Introduction to Civil Engineering Credits: (1) • CHM 210 - Chemistry I Credits: (4) • ECON 110 - Principles of Macroeconomics Credits: (3) • * ENGL 100 - Expository Writing I Credits: (3) • MATH 220 - Analytic Geometry and Calculus I Credits: (4) • ME 212 - Engineering Graphics Credits: (2)
Spring semester (17 credit hours)	Spring semester (17 credit hours)
<ul style="list-style-type: none"> • ***Option elective Credits: (3) • CE 015 - Engineering Assembly Credits: (0) • CHM 230 - Chemistry II Credits: (4) • CIS 209 - C Programming for Engineers Credits: (3) • GEOL 100 - Earth in Action Credits: (3) • MATH 221 - Analytic Geometry and Calculus II Credits: (4) 	<ul style="list-style-type: none"> • ***Option elective Credits: (3) • CE 015 - Engineering Assembly Credits: (0) • CHM 230 - Chemistry II Credits: (4) • CIS 209 - C Programming for Engineers Credits: (3) • GEOL 100 - Earth in Action Credits: (3) • MATH 221 - Analytic Geometry and Calculus II Credits: (4)

Sophomore year

Fall semester (17 credit hours)

- ***Option elective **Credits:** (3)
- [CE 015 - Engineering Assembly](#) **Credits:** (0)
- [CE 212 - Elementary Surveying Engineering](#) **Credits:** (3)
- [COMM 105 - Public Speaking IA](#) **Credits:** (2)
- [MATH 222 - Analytic Geometry and Calculus III](#) **Credits:** (4)
- [PHYS 213 - Engineering Physics I](#) **Credits:** (5)

Spring semester (16 credit hours)

- ***Option elective **Credits:** (2)
- [CE 015 - Engineering Assembly](#) **Credits:** (0)
- [CE 333 - Statics](#) **Credits:** (3)
- [DEN 325 - Introduction to Personal and Professional Development](#) **Credits:** (1)
- [MATH 240 - Elementary Differential Equations](#) **Credits:** (4)
- [PHYS 214 - Engineering Physics II](#) **Credits:** (5)
- [STAT 490 - Statistics for Engineers](#) **Credits:** (1)

Junior year

Fall semester (16 credit hours)

- ***Option elective **Credits:** (6)
- [CE 015 - Engineering Assembly](#) **Credits:** (0)
- [CE 533 - Mechanics of Materials](#) **Credits:** (3)
- [CE 534 - Mechanics of Materials Laboratory](#) **Credits:** (1)
- [ME 512 - Dynamics](#) **Credits:** (3)
- [ME 513 - Thermodynamics I](#) **Credits:** (3)

Spring semester (15 credit hours)

- [CE 015 - Engineering Assembly](#) **Credits:** (0)
- [CE 522 - Soil Mechanics I](#) **Credits:** (3)
- [CE 537 - Introduction to Structural Analysis](#) **Credits:** (3)
- [CE 563 - Environmental Engineering Fundamentals](#) **Credits:** (3)
- [ENGL 415 - Written Communication for Engineers](#)

Sophomore year

Fall semester (17 credit hours)

- ***Option elective **Credits:** (3)
- [CE 015 - Engineering Assembly](#) **Credits:** (0)
- [CE 212 - Elementary Surveying Engineering](#) **Credits:** (3)
- [COMM 105 - Public Speaking IA](#) **Credits:** (2)
- [MATH 222 - Analytic Geometry and Calculus III](#) **Credits:** (4)
- [PHYS 213 - Engineering Physics I](#) **Credits:** (5)

Spring semester (16 credit hours)

- ***Option elective **Credits:** (2)
- [CE 015 - Engineering Assembly](#) **Credits:** (0)
- [CE 333 - Statics](#) **Credits:** (3)
- [DEN 325 - Introduction to Personal and Professional Development](#) **Credits:** (1)
- [MATH 240 - Elementary Differential Equations](#) **Credits:** (4)
- [PHYS 214 - Engineering Physics II](#) **Credits:** (5)
- [STAT 490 - Statistics for Engineers](#) **Credits:** (1)

Junior year

Fall semester (16 credit hours)

- ***Option elective **Credits:** (6)
- [CE 015 - Engineering Assembly](#) **Credits:** (0)
- [CE 533 - Mechanics of Materials](#) **Credits:** (3)
- [CE 534 - Mechanics of Materials Laboratory](#) **Credits:** (1)
- [ME 512 - Dynamics](#) **Credits:** (3)
- [ME 513 - Thermodynamics I](#) **Credits:** (3)

Spring semester (15 credit hours)

- [CE 015 - Engineering Assembly](#) **Credits:** (0)
- [CE 522 - Soil Mechanics I](#) **Credits:** (3)
- [CE 537 - Introduction to Structural Analysis](#) **Credits:** (3)
- [CE 563 - Environmental Engineering Fundamentals](#) **Credits:** (3)

<p>Credits: (3) *</p> <ul style="list-style-type: none"> • ME 571 - Fluid Mechanics Credits: (3) <p>Senior year</p> <hr/> <p>Fall semester (15 credit hours)</p> <hr/> <ul style="list-style-type: none"> • ****Civil engineering electives Credits: (6) • ***Option elective Credits: (3) • **General education humanities or social science elective Credits: (3) <ul style="list-style-type: none"> • CE 015 - Engineering Assembly Credits: (0) • CE 550 - Water Resources Engineering Credits: (3) <p>Spring semester (15 credit hours)</p> <hr/> <ul style="list-style-type: none"> • ****Civil engineering elective Credits: (6) • **General education humanities or social science elective Credits: (6) <ul style="list-style-type: none"> • CE 015 - Engineering Assembly Credits: (0) • CE 585 - Civil Engineering Project Credits: (1-3) <p>Notes</p> <hr/> <p>To graduate with a BS in Civil Engineering at Kansas State University students must obtain a minimum of a C letter grade in all CE courses that are at the 300 level or above and that are counted toward the degree requirements.</p> <p>*Students must complete the appropriate prerequisite credits for ENGL 415 , but may apply only 3 credit hours of ENGL 415 prerequisite credits towards degree requirements.</p> <p>**General education humanities and general education social sciences electives are to be selected from university general education courses that are also on the engineering humanities and social sciences elective list and need not be taken in the order listed in the curriculum.</p> <p>***Option electives are to be selected in consultation with the student's faculty advisor to satisfy the requirements of the option the student has chosen. One course from either the engineering materials or circuits, fields, and electronics engineering science group is required in the general option.</p> <p>****CE electives are to be selected from the list approved by the department to satisfy option</p>	<ul style="list-style-type: none"> • ENGL 415 - Written Communication for Engineers Credits: (3) * • ME 571 - Fluid Mechanics Credits: (3) <p>Senior year</p> <hr/> <p>Fall semester (15 credit hours)</p> <hr/> <ul style="list-style-type: none"> • ****Civil engineering electives Credits: (6) • ***Option elective Credits: (3) • **General education humanities or social science elective Credits: (3) <ul style="list-style-type: none"> • CE 015 - Engineering Assembly Credits: (0) • CE 550 - Water Resources Engineering Credits: (3) <p>Spring semester (15 credit hours)</p> <hr/> <ul style="list-style-type: none"> • ****Civil engineering elective Credits: (6) • **General education humanities or social science elective Credits: (6) <ul style="list-style-type: none"> • CE 015 - Engineering Assembly Credits: (0) • CE 585 - Civil Engineering Project Credits: (1-3) <p>Notes</p> <hr/> <p>To graduate with a BS in Civil Engineering at Kansas State University students must obtain a minimum of a C letter grade in all CE courses that are at the 300 level or above and that are counted toward the degree requirements.</p> <p>*Students must complete the appropriate prerequisite credits for ENGL 415 , but may apply only 3 credit hours of ENGL 415 prerequisite credits towards degree requirements.</p> <p>**General education humanities and general education social sciences electives are to be selected from general education courses (K-State 8) that are also on the engineering humanities and social sciences elective list and need not be taken in the order listed in the curriculum.</p> <p>***Option electives are to be selected in consultation with the student's faculty advisor to satisfy the requirements of the option the student has chosen. One course from either the engineering materials or circuits, fields, and electronics engineering science group is required in the general option.</p> <p>****CE electives are to be selected from the list approved</p>
---	---

<p>requirements.</p> <p>IMPORTANT NOTES: Students who first enroll in Summer 2011 or later must meet the requirements of the K-State 8 General Education Program.</p> <p>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.</p> <p>For additional information about the University General Education program, check the requirements specified by the College of Engineering.</p> <p>Total hours required for graduation (128)</p>	<p>by the department to satisfy option requirements.</p> <p>IMPORTANT NOTES: Students who first enroll in Summer 2011 or later must meet the requirements of the K-State 8 General Education Program.</p> <p>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.</p> <p>For additional information about the University General Education program, check the requirements specified by the College of Engineering.</p> <p>Total hours required for graduation (128)</p>
--	--

Industrial and Manufacturing Systems Engineering

IMSE Curriculum Changes – Industrial Engineering Program Effective Date: Fall 2011

DROP: UGE requirement

CHANGE: K-State 8 requirement

RATIONALE: Due to the university-wide K-State 8 requirements, IMSE undergraduate program needs to change to reflect this general education policy change.

IMPACT: None

<p>Bachelor's degree requirements</p> <p>Freshman year</p> <hr/> <p>1st Semester (17 credit hours)</p> <hr/> <ul style="list-style-type: none"> • Humanities or Social Science UGE Credits: (3) • CHM 210 - Chemistry I Credits: (4) • ** ENGL 100 - Expository Writing I Credits: (3) • IMSE 015 - Engineering Assembly Credits: 	<p>Bachelor's degree requirements</p> <p>Freshman year</p> <hr/> <p>1st Semester (17 credit hours)</p> <hr/> <ul style="list-style-type: none"> • Humanities or Social Science Credits: (3) • CHM 210 - Chemistry I Credits: (4) • ** ENGL 100 - Expository Writing I Credits: (3) • IMSE 015 - Engineering Assembly Credits: (0) • IMSE 201 - Introduction of Industrial
---	---

<p>(0)</p> <ul style="list-style-type: none"> • IMSE 201 - Introduction of Industrial Engineering Credits: (3) • MATH 220 - Analytic Geometry and Calculus I Credits: (4) <p>2nd Semester (15 credit hours)</p> <hr/> <ul style="list-style-type: none"> • Computer Programming Elective Credits: (3) • COMM 105 - Public Speaking IA Credits: (2) • ECON 120 - Principles of Microeconomics Credits: (3) • IMSE 015 - Engineering Assembly Credits: (0) • IMSE 250 - Introduction to Manufacturing Processes and Systems Credits: (2) • IMSE 251 - Manufacturing Processes Laboratory Credits: (1) • MATH 221 - Analytic Geometry and Calculus II Credits: (4) <p>Sophomore year</p> <hr/>	<p>Engineering Credits: (3)</p> <ul style="list-style-type: none"> • MATH 220 - Analytic Geometry and Calculus I Credits: (4) <p>2nd Semester (15 credit hours)</p> <hr/> <ul style="list-style-type: none"> • Computer Programming Elective Credits: (3) • COMM 105 - Public Speaking IA Credits: (2) • ECON 120 - Principles of Microeconomics Credits: (3) • IMSE 015 - Engineering Assembly Credits: (0) • IMSE 250 - Introduction to Manufacturing Processes and Systems Credits: (2) • IMSE 251 - Manufacturing Processes Laboratory Credits: (1) • MATH 221 - Analytic Geometry and Calculus II Credits: (4) <p>Sophomore year</p> <hr/>
<p>1st Semester (15 credit hours)</p> <hr/> <ul style="list-style-type: none"> • Humanities UGE ≥ 300 Credits: (3) • IMSE 015 - Engineering Assembly Credits: (0) • MATH 222 - Analytic Geometry and Calculus III Credits: (4) • PHYS 213 - Engineering Physics I Credits: (5) • STAT 510 - Introductory Probability and Statistics I Credits: (3) <p>2nd Semester (17 credit hours)</p> <hr/> <ul style="list-style-type: none"> • Social Science UGE ≥ 300 level Credits: (3) • IMSE 015 - Engineering Assembly Credits: (0) • IMSE 530 - Engineering Economic Analysis Credits: (2) • IMSE 532 - Industrial Project Evaluation Credits: (1) • MATH 551 - Applied Matrix Theory Credits: (3) • PHYS 214 - Engineering Physics II Credits: (5) 	<p>1st Semester (15 credit hours)</p> <hr/> <ul style="list-style-type: none"> • Humanities Credits: (3) • IMSE 015 - Engineering Assembly Credits: (0) • MATH 222 - Analytic Geometry and Calculus III Credits: (4) • PHYS 213 - Engineering Physics I Credits: (5) • STAT 510 - Introductory Probability and Statistics I Credits: (3) <p>2nd Semester (17 credit hours)</p> <hr/> <ul style="list-style-type: none"> • Social Science Credits: (3) • IMSE 015 - Engineering Assembly Credits: (0) • IMSE 530 - Engineering Economic Analysis Credits: (2) • IMSE 532 - Industrial Project Evaluation Credits: (1) • MATH 551 - Applied Matrix Theory Credits: (3) • PHYS 214 - Engineering Physics II Credits: (5) • STAT 511 - Introductory Probability and

<ul style="list-style-type: none"> • STAT 511 - Introductory Probability and Statistics II Credits: (3) <p>Junior year</p> <hr/> <p>1st Semester (17 credit hours)</p> <hr/> <ul style="list-style-type: none"> • Engineering Elective Credits: (3) • ACCTG 231 - Accounting for Business Operations Credits: (3) • IMSE 015 - Engineering Assembly Credits: (0) • IMSE 541 - Statistical Quality Control Credits: (3) • IMSE 560 - Introduction to Operations Research I Credits: (3) • *** MANGT 420 - Management Concepts Credits: (3) • IMSE 501 - Industrial Management Credits: (3) • ME 212 - Engineering Graphics Credits: (2) <p>2nd Semester (15 credit hours)</p> <hr/> <ul style="list-style-type: none"> • IMSE Elective Credits: (3) • Professional Elective Credits: (3) • Engineering Elective Credits: (3) • ** ENGL 415 - Written Communication for Engineers Credits: (3) • IMSE 015 - Engineering Assembly Credits: (0) • IMSE 050 - Industrial Plant Studies Credits: (0) • IMSE 660 - Operations Research II Credits: (3) <p>Senior year</p> <hr/> <p>1st Semester (15 credit hours)</p> <hr/> <ul style="list-style-type: none"> • Professional Elective Credits: (3) • Engineering Elective Credits: (3) • IMSE 015 - Engineering Assembly Credits: (0) 	<p style="text-align: right;">Statistics II Credits: (3)</p> <p>Junior year</p> <hr/> <p>1st Semester (17 credit hours)</p> <hr/> <ul style="list-style-type: none"> • Engineering Elective Credits: (3) • ACCTG 231 - Accounting for Business Operations Credits: (3) • IMSE 015 - Engineering Assembly Credits: (0) • IMSE 541 - Statistical Quality Control Credits: (3) • IMSE 560 - Introduction to Operations Research I Credits: (3) • *** MANGT 420 - Management Concepts Credits: (3) • IMSE 501 - Industrial Management Credits: (3) • ME 212 - Engineering Graphics Credits: (2) <p>2nd Semester (15 credit hours)</p> <hr/> <ul style="list-style-type: none"> • IMSE Elective Credits: (3) • Professional Elective Credits: (3) • Engineering Elective Credits: (3) • ** ENGL 415 - Written Communication for Engineers Credits: (3) • IMSE 015 - Engineering Assembly Credits: (0) • IMSE 050 - Industrial Plant Studies Credits: (0) • IMSE 660 - Operations Research II Credits: (3) <p>Senior year</p> <hr/> <p>1st Semester (15 credit hours)</p> <hr/> <ul style="list-style-type: none"> • Professional Elective Credits: (3) • Engineering Elective Credits: (3) • IMSE 015 - Engineering Assembly Credits: (0)
---	--

- IMSE 623 - Industrial Ergonomics **Credits:** (3)
- IMSE 633 - Production Planning and Inventory Control **Credits:** (3)
- IMSE 643 - Industrial Simulation **Credits:** (3)

2nd Semester (16 credit hours)

-
- IMSE Elective **Credits:** (3)
 - Professional Elective **Credits:** (3)
- IMSE 015 - Engineering Assembly **Credits:** (0)
 - IMSE 555 - Industrial Facilities Layout and Design **Credits:** (3)
 - *** IMSE 580 - Manufacturing Systems Design and Analysis **Credits:** (4)
 - IMSE 591 - Senior Design Project I **Credits:** (2)
 - IMSE 592 - Senior Design Project II **Credits:** (2)
 - IMSE 685 - Principles of Manufacturing Information Systems **Credits:** (3)

Notes

**Prerequisite for ENGL 415 is a "B" or better in ENGL 100. ENGL 200 must be taken if ENGL 100 grade is less than or equal to a "C".

***Substitutions: IMSE 501 can substitute for MANGT 420; IMSE 591 and IMSE 592 can substitute for IMSE 580. Concurrent or prerequisite requirements for IMSE 591 are IMSE 541, 623, 633; and concurrent or prerequisite for IMSE 592 is IMSE 643.

- Humanities and Social Science UGE electives are to be selected from the catalog list and must satisfy [university general education requirements](#).
- IMSE electives must be selected from the IMSE department. Each class must be at least 3 credit hours.
- Each semester a student must enroll in IMSE 015 unless he/she is a concurrent B.S./M.S.I.E. student in which case he/she must enroll in either IMSE 015 or IMSE 892.
- **Computer Programming Elective:** The computer programming elective must be taken from the following courses: CIS 200, CIS 209 or ME 400.
- **Engineering Electives:** The 9 credit hours of basic engineering credit may not include more than 6 credit hours from a single department and the 9 credit hours must be selected from the following courses. Note, a student planning to take the FE exam would be advised to take

- IMSE 623 - Industrial Ergonomics **Credits:** (3)
- IMSE 633 - Production Planning and Inventory Control **Credits:** (3)
- IMSE 643 - Industrial Simulation **Credits:** (3)

2nd Semester (16 credit hours)

-
- IMSE Elective **Credits:** (3)
 - Professional Elective **Credits:** (3)
- IMSE 015 - Engineering Assembly **Credits:** (0)
 - IMSE 555 - Industrial Facilities Layout and Design **Credits:** (3)
 - *** IMSE 580 - Manufacturing Systems Design and Analysis **Credits:** (4)
 - IMSE 591 - Senior Design Project I **Credits:** (2)
 - IMSE 592 - Senior Design Project II **Credits:** (2)
 - IMSE 685 - Principles of Manufacturing Information Systems **Credits:** (3)

Notes

**Prerequisite for ENGL 415 is a "B" or better in ENGL 100. ENGL 200 must be taken if ENGL 100 grade is less than or equal to a "C".

***Substitutions: IMSE 501 can substitute for MANGT 420; IMSE 591 and IMSE 592 can substitute for IMSE 580. Concurrent or prerequisite requirements for IMSE 591 are IMSE 541, 623, 633; and concurrent or prerequisite for IMSE 592 is IMSE 643.

- Humanities and Social Science electives are to be selected from the [College of Engineering Humanities and Social Science Elective Course List approved by the College of Engineering](#). Students should select these courses as needed to complete the requirements of the [K-State 8 General Education program](#).
- IMSE electives must be selected from the IMSE department. Each class must be at least 3 credit hours.
- Each semester a student must enroll in IMSE 015 unless he/she is a concurrent B.S./M.S.I.E. student in which case he/she must enroll in either IMSE 015 or IMSE 892.
- **Computer Programming Elective:** The computer programming elective must be taken from the following courses: CIS 200, CIS 209 or ME 400.
- **Engineering Electives:** The 9 credit hours of basic engineering credit may not include more than 6 credit hours from a single department and the 9 credit hours must be selected from the following courses. Note, a student planning to

their 9 credit hours from classes with an *. BAE 500; CE 333, 530*, and 533; CHE 350, 352*, 354*, 520, and 521; ECE 510, 511, 519*, and 571; ME 512*, 513, 571, and 573.

- **Professional Electives:** The 9 credit hours of professional electives are designed so that the student may specialize in an area of interest. Any of the following classes may count toward the professional elective requirement. Any IMSE class; any engineering class above 300 level; any CIS class above 200 level; MATH 240 and any Mathematics class above 500 level except MATH 570 and 591; any Statistics class above 500 level except STAT 702, 703, 706 and 710; BIOL 198, BIOL 201, CHEM 230; FINAN 450, 510, 520 and 643; ACCTG 331, 342 and 433; ECON 510, 520, 530 and 540.

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 advisors.

Students enrolled prior to Summer 2011: must complete the [university general education requirements](#) specified by the [College of Engineering](#).

Total hours required for graduation (127)

take the FE exam would be advised to take their 9 credit hours from classes with an *. BAE 500; CE 333, 530*, and 533; CHE 350, 352*, 354*, 520, and 521; ECE 510, 511, 519*, and 571; ME 512*, 513, 571, and 573.

- **Professional Electives:** The 9 credit hours of professional electives are designed so that the student may specialize in an area of interest. Any of the following classes may count toward the professional elective requirement. Any IMSE class; any engineering class above 300 level; any CIS class above 200 level; MATH 240 and any Mathematics class above 500 level except MATH 570 and 591; any Statistics class above 500 level except STAT 702, 703, 706 and 710; BIOL 198, BIOL 201, CHEM 230; FINAN 450, 510, 520 and 643; ACCTG 331, 342 and 433; ECON 510, 520, 530 and 540.

IMSE Electives: The IMSE electives must be selected from the IMSE department. Each class must also be at least 3 credit hours.

Substitutions: IMSE 501 can substitute for MGMT 420; IMSE 591 and IMSE 592 can substitute for IMSE 580. Concurrent or prerequisite requirement for IMSE 591 is 24 credit hours of IMSE courses.

Humanities and Social Science electives: [H&SS](#) are to be selected from the college of engineering [H&SS list](#).

K-State 8: The courses required for a BSIE degree satisfy [five of the K-State 8 areas](#). The student must fulfill the [aesthetic experience, global perspectives, and historical perspectives tags](#). Most students will fill these tags with their humanities, social science or professional electives.

IMSE Assembly Requirement: Each semester a student must enroll in IMSE 015 unless he/she is a concurrent B.S./M.S.I.E. student in which case he/she must enroll in either IMSE 015 or IMSE 892.

* Prerequisite for ENGL 415 is a "B" or better in ENGL 100. ENGL 200 must be taken if ENGL 100's grade \leq "C".

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 advisors.

For additional information about the University General Education program, check the [requirements](#) specified by the [College of Engineering](#).

Total hours required for graduation (127)

Transportation/materials engineering option

This option allows students to obtain a BS in civil engineering while preparing more specifically for employment in the transportation industry.

Students choosing the transportation/materials engineering option can fulfill the requirements for a BS in civil engineering by following the course curriculum listed for civil engineering as well as the following selection of courses:

- CE 528 - Foundation Engineering Credits: (3)
- CE 544 - Structural Engineering in Concrete Credits: (3)
- CE 552 - Hydraulic Engineering Credits: (3)
- CE 572 – Hwy Engg/Plan/Mgmt Credits: (3)
- CE 411 Route Location/Des Credits (3)
- And two of the following:
- CE 641 - Civil Engineering Materials I Credits: (3)
- CE 774 – Pavement Des Credits (3)
- CE 775 – Traffic Engg Credits (3)

Transportation/materials option recommended electives (8 credit hours)

- *Other option electives
- CE 542 – Str Engg Steel Credits: (3)
- CE 680 - Economics of Design and Construction Credits: (3)
- CE 741 – CE Materials II Credits (3)
- CE 786 – Land Devt Credits: (3)
- ECON 631 – Principles of Transp Credits (3)
- STAT 510 – Intro Prob Stats Credits (3)

Note

*Other transportation/materials option electives may be chosen from courses in math, science, engineering, or business as approved by student's advisor.

Rationale: This proposal is about adding a new track (option) to meet the current graduation requirements necessary to obtain a B.S. in civil engineering. There are no curriculum changes, and no changes in the degree requirements nor the number of hours required. Only some technical electives are specified as required, and a more specific list of recommended elective course is suggested. This track allows students to graduate with the same degree in Civil Engineering while preparing more specifically for career opportunities with design and construction companies, consulting firms, and governmental agencies specializing in transportation engineering. This new option will be an addition to the existing options, i.e., the Construction Option, the Environmental Option, and the Structures Option. As always, if no option is specified, students will be considered being in the General Option.

Impact: None

Department of Computing & Information Sciences

COMPUTING AND INFORMATION SCIENCES MINOR

ADD:

CIS 308 1

Rationale: Because we are requiring CIS 308 as a prerequisite for CIS 450, we need to include 308 in the minor.

OLD

Computing and Information Sciences Minor

CIS	200	Fundamentals of Software Design and Implementation	4
CIS	300	Data and Program Structures	3
CIS	301	Logical Foundations of Programming	3
CIS	450	Computer Architecture and Operations	3
CIS	501	Software Architecture and Design	3
ECE	241	Introduction to Computer Engineering	3
TOTAL		<u>19</u>

NEW

Computing and Information Sciences Minor

CIS	200	Fundamentals of Software Design and Implementation	4
CIS	300	Data and Program Structures	3
CIS	301	Logical Foundations of Programming	3
<u>CIS</u>	<u>308</u>	<u>C/C++ Language Laboratory</u>	<u>1</u>
CIS	450	Computer Architecture and Operations	3
CIS	501	Software Architecture and Design	3
ECE	241	Introduction to Computer Engineering	3
TOTAL		<u>20</u>

INFORMATION SYSTEMS

DROP:

CIS 015	0
CIS 362	3
MATH 312	3
Natural Science Elective	3
Total.....	9

ADD:

CIS 115	3
CMST 135.....	3
CIS 526	3
Total.....	9

Rationale: We are replacing CIS 015 Undergraduate Seminar with CIS 115 Introduction to Computing Science in order to give new IS majors a broad introduction to the discipline of computing science. We anticipate that this introduction will help them to see what opportunities are available in the fields of Computer Science and Information Systems, as well as to understand how the concepts covered later in their curriculum fit together. We are adding the other two courses, CMST 135 Web Page Development I and CIS 526 Web Interface Design, to address a growing need for computing professionals who have experience in developing web-based applications. Together with CIS 562 Enterprise Information Systems, these courses will give IS majors a strong background in designing and deploying web-based applications to support e-commerce. We also anticipate that CIS 115 and CMST 135 will better prepare IS majors to succeed in CIS 200 Fundamentals of Software Design and Implementation and the programming-oriented courses that follow.

To make room for the addition of 9 credit hours, we are removing CIS 362 Introduction to Business Programming, MATH 312 Finite Applications of Mathematics, and 3 hours of natural science electives (reducing from 14 hours to 11). CIS 362 is a course in programming in COBOL, which is now largely replaced by more modern programming languages already covered in the IS curriculum. MATH 312 has been used primarily to prepare IS students for certain elective classes, namely, CIS 530 Introduction to Artificial Intelligence and/or CIS 560 Database System Concepts. However, both of these CIS electives are more appropriate for a CS degree than for an IS degree. While IS majors can still take MATH 312 as an unrestricted elective if they wish to take either of these CIS electives, it seems unnecessary to require it of all IS students. Finally, 11 hours of natural sciences seems to be plenty for an IS major.

These changes are a part of a larger effort to integrate more information technology into our Information Systems degree. In addition to these curriculum changes, we will also be working with the Department of Engineering Technology (Salina campus) to make CMST 350 UNIX Administration available as a technical elective for IS majors. We will also allow students to use as a technical elective a new course, MANGT 486 ERP Configuration Management (to be available beginning Spring 2012), which focuses on Enterprise Resource Planning technology.

Effective: Fall 2011

Impact: We have been in communication with the Department of Engineering Technology regarding the addition of CMST 135 and the elimination of CIS 362, which they have been teaching for us in recent

years. We have also been in communication with the Department of Mathematics regarding the elimination of MATH 312.

DROP:

“Humanities/social science electives must be taken from the list approved by the College of Engineering and must include 6 hours selected from the following departments: English, History, Modern Languages, and Philosophy (except PHILO 492). At least 6 of these hours must be UGE courses at the 300 level or above.”

ADD:

“Humanities/social science electives must be taken from the list approved by the College of Engineering.”

RATIONALE: The UGE program is being replaced by the K-State 8 program. The K-State 8 requirement that all students must take at least one course bearing each of the eight tags enforces sufficient breadth within the humanities. Because the College of Engineering is proposing to drop the requirement that 6 hours be at the 300 level or above, we would also like to drop this requirement.

EFFECTIVE: Fall 2011.

IMPACT: None.

DROP:

“An unrestricted elective is any 100- or higher-level course, excluding courses listed as a prerequisite to a required course, approved by an adviser.”

RATIONALE: We would like for unrestricted electives to be truly unrestricted.

EFFECTIVE: Fall 2011

IMPACT: None.

COMPUTER SCIENCE, BOTH OPTIONS (CS, SE)

DROP:

CIS 015 0
Unrestricted Elective..... 3
Total..... 3

ADD:

CIS 115 3
Total..... 3

RATIONALE: We are replacing CIS 015 Undergraduate Seminar with CIS 115 Introduction to Computing Science in order to give new CS majors a broad introduction to the discipline of computing science. We anticipate that this introduction will help them to see what opportunities are available in the fields of Computer Science and Information Systems, as well as to understand how the concepts covered later in their curriculum fit together. To make room for the addition of 3 credit hours, we are removing 3 hours of unrestricted electives.

EFFECTIVE: Fall 2011

IMPACT: None.

DROP:

“All students new to the CIS department must complete CIS 015.”

ADD:

“All students new to the CIS department must complete CIS 115.”

RATIONALE: We are replacing CIS 015 with CIS 115. The breadth of topics covered in this course is important for all Computer Science majors, including those who may have some Computer Science background from another institution. We would therefore like for all of our new students to take this course.

EFFECTIVE: Fall 2011

IMPACT: None.

DROP:

“Humanities/social science electives must be taken from the list approved by the College of Engineering and must include 6 hours selected from the following departments: English, History, Modern Languages, and Philosophy (except PHILO 492). At least 6 of these hours must be UGE courses at the 300 level or above.”

ADD:

“Humanities/social science electives must be taken from the list approved by the College of Engineering.”

RATIONALE: The UGE program is being replaced by the K-State 8 program. The K-State 8 requirement that all students must take at least one course bearing each of the eight tags enforces sufficient breadth within the humanities. Because the College of Engineering is proposing to drop the requirement that 6 hours be at the 300 level or above, we would also like to drop this requirement.

EFFECTIVE: Fall 2011.

IMPACT: None.

DROP:

“An unrestricted elective is any 100- or higher-level course, excluding courses listed as a prerequisite to a required course, approved by an adviser.”

RATIONALE: We would like for unrestricted electives to be truly unrestricted.

EFFECTIVE: Fall 2011

IMPACT: None.

COMPUTER SCIENCE, CS OPTION ONLY

DROP:

CIS 570 or CIS 575 3

ADD:

CIS 575 3

RATIONALE: For the last couple of years, there has been insufficient to demand for CIS 570 Introduction to Formal Language Theory to warrant offering it. Because virtually all students are taking CIS 575 Introduction to Algorithm Analysis, we will require it rather than offering a choice.

EFFECTIVE: Fall 2011

IMPACT: None.

OLD

Curriculum in Computing and Information Sciences
Bachelor of Science in Information Systems

First Semester	Sem	Second Semester	Sem
Course	Cr Hrs	Course	Cr Hrs

FRESHMAN

CIS 015 Undergraduate Seminar0	CIS 200 Fundamentals of Software Design and Implementation.....4
ECE 241 Introduction to Computer Engineering.... 3	Humanities/SS elective (second of six).....3
MATH 205 General Calculus and Linear Algebra..... 3	ECON 110 Principles of Macroeconomics.....3
ENGL 100 Expository Writing I..... 3	COMM 105 Public Speaking IA.....2
	or
Humanities/SS elective (first of six) 3	COMM 106 Public Speaking I.....3
Unrestricted elective..... 3	Unrestricted elective.....3
Total 15	Total 15-16

SOPHOMORE

CIS 300 Data and Program Structures..... 3	CIS 308 C/C++ Language Laboratory..... 1
CIS 301 Logical Foundations of Programming..... 3	CIS 501 Software Architecture and Design.....3
ENGL 200 Expository Writing II..... 3	MATH 312 Finite Applications of Mathematics3
Natural science elective with laboratory (first of four)... 4	DEN 325 Intro. to Personal and Prof. Devel..... 1
Humanities/SS elective (third of six)..... 3	Natural science elective with lab (second of four).....4
	Unrestricted elective.....4
Total 16	Total 16

JUNIOR

CIS 362 Introduction to Business Programming3	CIS 415 Computers and Society..... 1
CIS 562 Enterprise Information Systems..... 3	CIS 450 Computer Architecture and Operations.....3
ACCT 231 Acctg. for Bus. Ops. 3	
STAT 325 Introduction to Statistics..... 3	Natural science elective (third of four) 3
ENGL 516 Written Communications for the Sci. 3	Humanities/SS elective (fourth of six).....3
	Unrestricted Elective..... 5-6
Total 15	Total 15-16

SENIOR

CIS 525 Telecommunications and Data Communications Systems..... 3	CIS 597 Information Systems Project 3
CIS 540 Software Engineering Project I or	Humanities/SS elective (sixth of six).....3
CIS 543 Software Design Project. 3	Technical elective.....3
Technical elective..... 3	Unrestricted electives.....7
Natural science elective (fourth of four)3	
Humanities/SS elective (fifth of six)..... 3	
Total 15	Total 16

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 015.

Humanities/social science electives must be taken from the list approved by the College of Engineering and must include 9 hours from at least two of the following departments: English, History, Modern Languages, and Philosophy (except PHIL 492). At least 6 of these hours must be UGE courses at the 300 level or above.

An unrestricted elective is any 100 or higher level course, excluding courses listed as a prerequisite to a required course, approved by an adviser.

124 hours required for graduation.

NEW

Curriculum in Computing and Information Sciences
Bachelor of Science in Information Systems

First Semester Course	Sem Cr Hrs	Second Semester Course	Sem Cr Hrs
FRESHMAN			
CIS 115	Introduction to Computing Science 3	CMST 135	Web Page Development I 3
MATH 205	General Calculus and Linear Algebra 3	ECE 241	Introduction to Computer Engineering 3
ENGL 100	Expository Writing I 3	Humanities/SS elective (second of six) 3	
		COMM 105	Public Speaking IA 2
		or	
		COMM 106	Public Speaking I 3
		Natural science elective (first of three) 3	
Humanities/SS elective (first of six)	3		
Unrestricted elective	3		
Total	15	Total	14-15
SOPHOMORE			
CIS 200	Fundamentals of Software Design and Implementation 4	CIS 300	Data and Program Structures 3
ECON 110	Principles of Macroeconomics 3	CIS 301	Logical Foundations of Programming 3
ENGL 200	Expository Writing II 3	DEN 325	Intro. to Personal and Prof. Devel. 1
	Humanities/SS elective (third of six) 3	Natural science elective with lab (second of three) 4	
	Unrestricted elective 3	Unrestricted elective 4	
Total	16	Total	15
JUNIOR			
CIS 308	C/C++ Language Laboratory 1	CIS 450	Computer Architecture and Operations 3
CIS 501	Software Architecture and Design 3	CIS 526	Web Interface Design 3
ACCT 231	Acctg. for Bus. Ops. 3	Humanities/SS elective (fourth of six) 3	
STAT 325	Introduction to Statistics 3	Unrestricted Elective 6-7	
ENGL 516	Written Communications for the Sci. 3		
	Unrestricted elective 3		
Total	16	Total	15-16
SENIOR			
CIS 415	Computers and Society 1	CIS 597	Information Systems Project 3
CIS 525	Telecommunications and Data Communications Systems 3	Humanities/SS elective (sixth of six) 3	
CIS 540	Software Engineering Project I or CIS 543 Software Design Project. 3	Natural science elective with laboratory (third of three) .4	
CIS 562	Enterprise Information Systems 3	Technical elective 3	
	Technical elective 3	Unrestricted electives 3	
	Humanities/SS elective (fifth of six) 3		
Total	16	Total	16

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.

Humanities/social science electives must be taken from the list approved by the College of Engineering.

124 hours required for graduation.

OLD

Curriculum in Computing and Information Sciences
 Bachelor of Science in Computer Science --- CS OPTION

First Semester Course	Sem Cr Hrs	Second Semester Course	Sem Cr Hrs
FRESHMAN			
CIS 015 Undergraduate Seminar	0	CIS 200 Fundamentals of Software Design and Implementation	4
ECE 241 Introduction to Computer Engineering	3	MATH 221 Analytic Geometry and Calculus II	4
MATH 220 Analytic Geometry and Calculus I.....	4	ECON 110 Principles of Macroeconomics	3
ENGL 100 Expository Writing I.....	3	Humanities/social science elective (second of five)	3
Humanities/social science elective (first of five).....	3		
COMM 105 Public Speaking IA	2		
or			
COMM 106 Public Speaking I.....	3		
		Total	14
Total	15-16		
SOPHOMORE			
CIS 300 Data and Program Structures	3	CIS 308 C/C++ Language Laboratory	1
CIS 301 Logical Foundations of Programming	3	CIS 501 Software Architecture and Design.....	3
ENGL 200 Expository Writing II.....	3	MATH 510 Discrete Mathematics	3
Natural science elective with laboratory (first of four)	4	DEN 325 Intro. to Personal and Prof. Development.1	
Unrestricted elective.....	3	Natural science elective (second of four)	3
		Humanities/social science elective (third of five).....	3
		Unrestricted elective	2-3
		Total	16-17
Total	16		
JUNIOR			
CIS 505 Introduction to Programming Languages.3		CIS 415 Computers and Society.....	1
CIS 560 Database System Concepts	3	CIS 450 Computer Architecture and Operations.....	3
Natural science elective with lab (third of four)	4	CIS 575 Introduction to Algorithm Analysis	
Unrestricted elective	6	or	
		Technical Elective (first of two).....	3
		ENGL 516 Written Communication for the Sciences.3	
		Humanities/social science elective (fourth of five)	3
		Natural science elective (fourth of four).....	3
		Total	16
Total	16		
SENIOR			
CIS 520 Operating Systems I	3	CIS 598 Computer Science Project.....	3
CIS 570 Introduction to Formal Language Theory		STAT 510 Introductory Probability and Statistics I...3	
or		Technical elective (second of two).....	3
Technical Elective (first of two)	3	Unrestricted electives	6
MATH 551 Applied Matrix Theory	3		
Humanities/social science elective (fifth of five)	3		
Unrestricted elective	3		
Total	15	Total	15

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 015.

~~Either CIS 570 or CIS 575 must be completed.~~

Natural science courses must have departmental approval.

Humanities/social science electives must be taken from the list approved by the College of Engineering and must include 6 hours selected from the following departments: English, History, Modern Languages, and Philosophy (except PHIL 492). At least 6 of these hours must be UGE courses at the 300 level or above.

~~An unrestricted elective is any 100 or higher level course, excluding courses listed as a prerequisite to a required course, approved by an adviser.~~

124 hours required for graduation.

NEW

Curriculum in Computing and Information Sciences
 Bachelor of Science in Computer Science --- CS OPTION

First Semester Course	Sem Cr Hrs	Second Semester Course	Sem Cr Hrs
FRESHMAN			
CIS 115	Introduction to Computing Science 3	CIS 200	Fundamentals of Software Design and Implementation 4
MATH 220	Analytic Geometry and Calculus I 4	ECE 241	Introduction to Computer Engineering 3
ENGL 100	Expository Writing I 3	MATH 221	Analytic Geometry and Calculus II 4
Humanities/social science elective (first of five) 3		Natural science elective with laboratory (first of four) 4	
COMM 105	Public Speaking IA 2		
or			
COMM 106	Public Speaking I 3		
Total		15	
Total 15-16			
SOPHOMORE			
CIS 300	Data and Program Structures 3	CIS 308	C/C++ Language Laboratory 1
CIS 301	Logical Foundations of Programming 3	CIS 501	Software Architecture and Design 3
ENGL 200	Expository Writing II 3	MATH 510	Discrete Mathematics 3
ECON 110	Principles of Macroeconomics 3	Natural science elective (second of four) 3	
Humanities/social science elective (second of five) 3		Humanities/social science elective (third of five) 3	
DEN 325	Intro. to Personal and Prof. Development 1	Unrestricted elective 2-3	
Total		Total 15-16	
JUNIOR			
CIS 415	Computers and Society 1	CIS 450	Computer Architecture and Operations 3
CIS 505	Introduction to Programming Languages. 3	CIS 575	Introduction to Algorithm Analysis 3
Humanities/social science elective (fourth of five) 3		ENGL 516	Written Communication for the Sciences. 3
Unrestricted elective 6		Humanities/social science elective (fifth of five) 3	
Natural science elective (third of four) 3		Unrestricted elective 3	
Total		Total 15	
SENIOR			
CIS 520	Operating Systems 1 3	CIS 598	Computer Science Project 3
CIS 560	Database System Concepts 3	STAT 510	Introductory Probability and Statistics I ... 3
Technical Elective (first of two) 3		Natural science elective with lab (fourth of four) 4	
MATH 551	Applied Matrix Theory 3	Technical elective (second of two) 3	
Unrestricted elective 3		Unrestricted electives 3	
Total		Total 16	

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.

Natural science courses must have departmental approval.

Humanities/social science electives must be taken from the list approved by the College of Engineering.

124 hours required for graduation.

OLD

Curriculum in Computing and Information Sciences
 Bachelor of Science in Computer Science --- SE OPTION

First Semester Course	Sem Cr Hrs	Second Semester Course	Sem Cr Hrs
FRESHMAN			
CIS 015 Undergraduate Seminar	0	CIS 200 Fundamentals of Software Design and Implementation	4
ECE 241 Introduction to Computer Engineering	3	MATH 221 Analytic Geometry and Calculus II	4
MATH 220 Analytic Geometry and Calculus I.....	4	ECON 110 Principles of Macroeconomics	3
ENGL 100 Expository Writing I.....	3	Humanities/social science elective (second of five)	3
Humanities/social science elective (first of five).....	3		
COMM 105 Public Speaking IA	2		
or			
COMM 106 Public Speaking I.....	3		
		Total	14
Total	15-16		
SOPHOMORE			
CIS 300 Data and Program Structures	3	CIS 501 Software Architecture and Design.....	3
CIS 301 Logical Foundations of Programming	3	CIS 308 C/C++ Language Laboratory.....	1
ENGL 200 Expository Writing II.....	3	MATH 510 Discrete Mathematics	3
Natural science elective with laboratory (first of four)	4	DEN 325 Intro. to Personal and Prof. Development.1	
Unrestricted elective	3	Humanities/social science elective (third of five).....	3
		Natural science elective (second of four)	3
		Unrestricted elective	2-3
Total	16	Total	16-17
JUNIOR			
CIS 450 Computer Architecture and Operations.....	3	CIS 415 Computers and Society	1
ENGL 516 Written Communication for the Sciences	3	CIS 625 Concurrent Software Systems.....	3
Humanities/social science elective (fourth of five).....	3	STAT 510 Introductory Probability and Statistics I...3	
Natural science elective with lab (third of four)	4	Humanities/social science elective (fifth of five)	3
Unrestricted elective	3	Unrestricted elective.....	6
Total	16	Total	16
SENIOR			
CIS 540 Software Engineering Project I.....	3	CIS 541 Software Engineering Project II	3
CIS 562 Enterprise Information Systems	3	CIS 544 Advanced Software Design & Devel.	3
MATH 551 Applied Matrix Theory	3	Technical Elective (second of two)	3
Unrestricted electives.....	3	Natural science elective (fourth of four).....	3
Technical elective (first of two).....	3	Unrestricted electives	3
Total	15	Total	15

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 015.

Natural science courses must have departmental approval.

Humanities/social science electives must be taken from the list approved by the College of Engineering and must include 6 hours selected from the following departments: English, History, Modern Languages, and Philosophy (except PHIL 492). At least 6 of these hours must be UGE courses at the 300 level or above.

~~An unrestricted elective is any 100 or higher level course, excluding courses listed as a prerequisite to a required course, approved by an adviser.~~

124 hours required for graduation.

NEW

Curriculum in Computing and Information Sciences
 Bachelor of Science in Computer Science --- SE OPTION

First Semester Course	Sem Cr Hrs	Second Semester Course	Sem Cr Hrs
FRESHMAN			
CIS 115	Introduction to Computing Science 3	CIS 200	Fundamentals of Software Design and Implementation 4
MATH 220	Analytic Geometry and Calculus I 4	ECE 241	Introduction to Computer Engineering 3
ENGL 100	Expository Writing I 3	MATH 221	Analytic Geometry and Calculus II 4
	Humanities/social science elective (first of five) 3		Natural science elective with laboratory (first of four) 4
COMM 105	Public Speaking IA 2		
	or		
COMM 106	Public Speaking I 3		
		Total	15
Total	15-16		
SOPHOMORE			
CIS 300	Data and Program Structures 3	CIS 501	Software Architecture and Design 3
CIS 301	Logical Foundations of Programming 3	CIS 308	C/C++ Language Laboratory 1
DEN 325	Intro. to Personal and Prof. Development 1	MATH 510	Discrete Mathematics 3
ENGL 200	Expository Writing II 3		Humanities/social science elective (third of five) 3
ECON 110	Principles of Macroeconomics 3		Natural science elective (second of four) 3
	Humanities/social science elective (second of five) 3		Unrestricted elective 2-3
		Total	15-16
Total	16		
JUNIOR			
CIS 415	Computers and Society 1	CIS 625	Concurrent Software Systems 3
CIS 450	Computer Architecture and Operations 3	STAT 510	Introductory Probability and Statistics I ... 3
ENGL 516	Written Communication for the Sciences 3		Humanities/social science elective (fifth of five) 3
	Humanities/social science elective (fourth of five) 3		Unrestricted elective 6
	Natural science elective (third of four) 3		
	Unrestricted elective 3		
		Total	15
Total	16		
SENIOR			
CIS 540	Software Engineering Project I 3	CIS 541	Software Engineering Project II 3
CIS 562	Enterprise Information Systems 3	CIS 544	Advanced Software Design & Devel. 3
MATH 551	Applied Matrix Theory 3		Technical Elective (second of two) 3
	Unrestricted elective 3		Natural science elective with lab (fourth of four) 4
	Technical elective (first of two) 3		Unrestricted elective 3
		Total	16
Total	15		

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.

Natural science courses must have departmental approval.

Humanities/social science electives must be taken from the list approved by the College of Engineering.

124 hours required for graduation.

Department of Mechanical and Nuclear Engineering

Changes to BS in Mechanical Engineering

Rationale: The two-credit course CHE 352 is no longer offered. The same material is covered in two one-credit courses, CHE 354 and CHE 355. This change merely allows our students to obtain the required material from the course currently offered by the Chemical Engineering Department.

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

Effective: Fall 2011

Bachelor degree requirements	Bachelor degree requirements
<p>Freshman year</p> <hr/> <p>Fall semester (16 credit hours)</p> <hr/> <ul style="list-style-type: none"> • Humanities/social science elective *a Credits: (3) • CHM 210 - Chemistry I Credits: (4) • MATH 220 - Analytic Geometry and Calculus I Credits: (4) • ENGL 100 - Expository Writing I Credits: (3) • ME 101 – Introduction to Mechanical Engineering : Credits: (2) <p>Spring semester (16 credit hours)</p> <hr/> <ul style="list-style-type: none"> • COMM 105 - Public Speaking IA Credits: (2) • ECON 110 - Principles of Macroeconomics Credits: (3) • MATH 221 - Analytic Geometry and Calculus II Credits: (4) • PHYS 213 (5) – Engineering Physics 1 Credits: (5) • ME 212, Engineering Graphics Credits: (2) 	<p>Freshman year</p> <hr/> <p>Fall semester (16 credit hours)</p> <hr/> <ul style="list-style-type: none"> • Humanities/social science elective *a Credits: (3) • CHM 210 - Chemistry I Credits: (4) • MATH 220 - Analytic Geometry and Calculus I Credits: (4) • ENGL 100 - Expository Writing I Credits: (3) • ME 101 – Introduction to Mechanical Engineering : Credits: (2) <p>Spring semester (16 credit hours)</p> <hr/> <ul style="list-style-type: none"> • COMM 105 - Public Speaking IA Credits: (2) • ECON 110 - Principles of Macroeconomics Credits: (3) • MATH 221 - Analytic Geometry and Calculus II Credits: (4) • PHYS 213 (5) – Engineering Physics 1 Credits: (5) • ME 212, Engineering Graphics Credits: (2)
<p>Sophomore year</p> <hr/> <p>Fall semester (16 credit hours)</p> <hr/> <ul style="list-style-type: none"> • CHE 352 – Structural Materials Credits: (2) • MATH 222 - Analytic Geometry and Calculus III Credits: (4) • PHYS 214 - Engineering Physics II Credits: (5) • CE 333 – Statics Credits: (3) • IMSE 250 – Introduction to Manufacturing Processes Credits: (2) 	<p>Sophomore year</p> <hr/> <p>Fall semester (16 credit hours)</p> <hr/> <ul style="list-style-type: none"> • <u>CHE 354 – Basic Concepts in Materials and Engineering Credits: (1)</u> • <u>CHE 355 – Fundamentals of Mechanical Properties Credits: (1)</u> • MATH 222 - Analytic Geometry and Calculus III Credits: (4) • PHYS 214 - Engineering Physics II Credits: (5) • CE 333 – Statics Credits: (3) • IMSE 250 – Introduction to Manufacturing Processes Credits: (2) <p>Spring semester (15 credit hours)</p>

<p>Spring semester (15 credit hours)</p> <hr/> <ul style="list-style-type: none"> • Humanities/social science elective *a Credits: (2) • MATH 240 - Elementary Differential Equations Credits: (4) • ME 513 – Thermodynamics 1 Credits: (3) • ME 512 – Dynamics Credits: (3) • NE 495 – Elements of Nuclear Engineering Credits: (3) 	<hr/> <ul style="list-style-type: none"> • Humanities/social science elective *a Credits: (2) • MATH 240 - Elementary Differential Equations Credits: (4) • ME 513 – Thermodynamics 1 Credits: (3) • ME 512 – Dynamics Credits: (3) • NE 495 – Elements of Nuclear Engineering Credits: (3)
<p>Junior year</p>	<p>Junior year</p>
<p>Fall semester (16 credit hours)</p> <hr/> <ul style="list-style-type: none"> • CE 533 – Mechanics of Materials Credits: (3) • ME 400 – Computer Applications in Mechanical Engineering Credits: (3) • ECE 519 – Circuits and Controls Credits: (4) • MATH 551 – Applied Matrix Theory Credits: (3) • Technical elective *b Credits: (3) 	<p>Fall semester (16 credit hours)</p> <hr/> <ul style="list-style-type: none"> • CE 533 – Mechanics of Materials Credits: (3) • ME 400 – Computer Applications in Mechanical Engineering Credits: (3) • ECE 519 – Circuits and Controls Credits: (4) • MATH 551 – Applied Matrix Theory Credits: (3) • Technical elective *b Credits: (3)
<p>Spring semester (16 credit hours)</p> <hr/> <ul style="list-style-type: none"> • ME 533 – Machine Design 1 Credits: (3) • ME 5701 – Control of Mechanical Systems 1 Credits: (4) • ME 571 – Fluid Mechanics Credits: (3) • Technical elective *b Credits: (3) • ME 535 – Measurements and Instrumentation or NE 612 – Principles of Radiation Detection Credits: (3) 	<p>Spring semester (16 credit hours)</p> <hr/> <ul style="list-style-type: none"> • ME 533 – Machine Design 1 Credits: (3) • ME 5701 – Control of Mechanical Systems 1 Credits: (4) • ME 571 – Fluid Mechanics Credits: (3) • Technical elective *b Credits: (3) • ME 535 – Measurements and Instrumentation or NE 612 – Principles of Radiation Detection Credits: (3))
<p>Senior year</p>	<p>Senior year</p>
<p>Fall semester (17 credit hours)</p> <hr/> <ul style="list-style-type: none"> • ≥300 level Humanities/social science elective *a Credits: (3) • IMSE 530 – Industrial Design Projects 1 Credits: (2) • ME 574 - Chemical Reaction Engineering Credits: (3) • ENGL 415 - Written Communication for Engineers Credits: (3) • Technical elective *b Credits: (3) • Technical elective *b Credits: (3) 	<p>Fall semester (17 credit hours)</p> <hr/> <ul style="list-style-type: none"> • ≥300 level Humanities/social science elective *a Credits: (3) • IMSE 530 – Industrial Design Projects 1 Credits: (2) • ME 574 - Chemical Reaction Engineering Credits: (3) • ENGL 415 - Written Communication for Engineers Credits: (3) • Technical elective Credits: (3) • Technical elective Credits: (3)
<p>Spring semester (15 credit hours)</p> <hr/> <ul style="list-style-type: none"> • ≥300 level Humanities/social science elective Credits: (3) • ME 575 – Industrial Design Projects 2 Credits: 	<p>Spring semester (15 credit hours)</p> <hr/> <ul style="list-style-type: none"> • ≥300 level Humanities/social science elective Credits: (3) • ME 575 – Industrial Design Projects 2 Credits: (3)

<p>(3)</p> <ul style="list-style-type: none"> • ME 573 – Heat Transfer Credits: (3) • Technical elective *b Credits: (3) • Technical elective *b Credits: (3) <p>Notes</p> <hr/> <p>*a A total of 11 credits of humanities and social science electives are required, six of which must be 300-level or higher. These are to be selected from the College of Engineering Humanities and Social Science Electives Course List. Students should select these courses such that the requirements of the K-State 8 general education program also are met</p> <p>*b Three technical electives are to be chosen from MNE courses with at least one course 600-level or above. Another technical elective is to be chosen from 200-level or above College of Engineering (including MNE) classes. The remaining technical electives are to be chosen from 200-level or above College of Engineering, Math, Chemistry, Physics, Biology, or Business Administration classes or 400-level or above Statistics classes. Other classes that strengthen a student’s program of study will be considered and require advisor and department head approval</p> <p>*c Nuclear Engineering Option: The four Nuclear Engineering options courses fulfill the requirement of the three MNE and one College of Engineering technical elective courses.</p>	<ul style="list-style-type: none"> • ME 573 – Heat Transfer Credits: (3) • Technical elective *b Credits: (3) • Technical elective *b Credits: (3) <p>Notes</p> <hr/> <p>*a A total of 11 credits of humanities and social science electives are required, six of which must be 300-level or higher. These are to be selected from the College of Engineering Humanities and Social Science Electives Course List. Students should select these courses such that the requirements of the K-State 8 general education program also are met.</p> <p>*b Three technical electives are to be chosen from MNE courses with at least one course 600-level or above. Another technical elective is to be chosen from 200-level or above College of Engineering (including MNE) classes. The remaining technical electives are to be chosen from 200-level or above College of Engineering, Math, Chemistry, Physics, Biology, or Business Administration classes or 400-level or above Statistics classes. Other classes that strengthen a student’s program of study will be considered and require advisor and department head approval</p> <p>*c Nuclear Engineering Option: The four Nuclear Engineering options courses fulfill the requirement of the three MNE and one College of Engineering technical elective courses.</p>
---	---

GRADUATE COURSE AND CURRICULUM CHANGES

Graduate Council Approved on April 5, 2011

College of Human Ecology – February 16, 2011 Approval Sheets

School of Family Studies and Human Services

ADD NEW COURSE

FSHS 727 Clinical Approaches to Family Health and Illness

Credits: (3)

Clinical approaches to health behaviors and chronic illness management are generally focused on the individual. This course will address contextual and relational factors that impact health and illness within family contexts. The course will explore ways to develop an integrated clinical approach to assess individuals and families attempting to manage a variety of medical conditions across the life span.

When Offered

Fall, Spring, Summer

RATIONALE: The proposed addition of this course is to make it a standing course in the School of Family Studies and Human Services; the course has previously been taught as a topics course in FSHS 700.

EFFECTIVE DATE: Summer 2011

IMPACT ON OTHER UNITS: None

College of Veterinary Medicine – February 18, 2011 Approval Sheets

Department of Diagnostic Medicine/Pathobiology

ADD: DMP 855. Disease Detection, Surveillance and Risk Assessment. (3) I. The course is focused on understanding the principles underlying quantitative risk assessments and disease detection/surveillance systems suited to a variety of animal health and food safety applications. These will then be used to advance the practical application of risk assessment and disease detection in the development of valid and useful herd, regional and national disease surveillance programs.

RATIONALE: This course fills a specialty graduate need for additional training in methods useful for diagnostic test evaluation, design and implementation of valid surveillance systems, and quantitative risk assessment suited to animal health and food safety decision making based on sound scientific principles; specifically, with an emphasis on risks associated with importation of animal and food products. The approaches are very quantitative and employ cutting edge epidemiological methods and software. The course was previously taught for the first time at KSU in Spring 2010 as a topics class (895/995) and at Texas A&M 4 times previously prior to Dr. Scott arriving at K-State. TEVALs are included as supporting documentation. Previously it was combined with Dr. Mike Sanderson's infectious disease modeling course but materials were too compressed as a result. It will stand on its own in future and be offered in odd numbered years.

EFFECTIVE DATE: Fall 2011

Graduate Course Additions (Approved 3-1-11 and 4-5-11)

Veterinary Medicine

Department of Clinical Sciences (12-17-10)

ADD: **CS 828. Veterinary Management of Sheep and Goats. (2) II.** Online seminars in KSOL and case-based discussions in class on herd management, preventive health care, nutrition, medicine, diseases, reproduction, and surgery of sheep and goats. Pr.: Third year standing in College of Veterinary Medicine or graduate student.

RATIONALE: Sheep and goats remain an enduring livestock industry in the USA. Meat goats have enjoyed recent expansion as demand for goat meat has increased. Sheep and goats experience health issues that are unique from other livestock. This course will address specific topics regarding herd management, preventive health care, nutrition, medicine, diseases, reproduction, and surgery of sheep and goats.

EFFECTIVE DATE: Spring 2012

ADD: **CS 829. Veterinary Management of Small Ruminants. (1) I, II, S.** Online seminars in KSOL on herd management, preventive health care, nutrition, medicine, diseases, reproduction, and surgery of sheep and goats. Pr.: Second or third year standing in College of Veterinary Medicine or graduate student.

RATIONALE: Sheep and goats remain an enduring livestock industry in the USA. Meat goats have enjoyed recent expansion as demand for goat meat has increased. Sheep and goats experience health issues that are unique from other livestock. This course will address specific topics regarding herd management, preventive health care, nutrition, medicine, diseases, reproduction, and surgery of sheep and goats.

EFFECTIVE DATE: Summer 2011

Department of Diagnostic Medicine/Pathobiology (2-18-11)

ADD: **DMP 855. Disease Detection, Surveillance and Risk Assessment. (3) I.** The course is focused on understanding the principles underlying quantitative risk assessments and disease detection/surveillance systems suited to a variety of animal health and food safety applications. These will then be used to advance the practical application of risk assessment and disease detection in the development of valid and useful herd, regional and national disease surveillance programs.

RATIONALE: This course fills a specialty graduate need for additional training in methods useful for diagnostic test evaluation, design and implementation of valid surveillance systems, and quantitative risk assessment suited to animal health and food safety decision making based on sound scientific principles; specifically, with an emphasis on risks associated with importation of animal and food products. The approaches are very quantitative and employ cutting edge epidemiological methods and software. The course was previously taught for the first time at KSU in Spring 2010 as a topics class (895/995) and at Texas A&M 4 times previously prior to Dr. Scott arriving at K-State. TEVALs are included as supporting documentation. Previously it was combined with Dr. Mike Sanderson's infectious disease modeling course but materials were too compressed as a result. It will stand on its own in future and be offered in odd numbered years.

EFFECTIVE DATE: Fall 2011

Graduate Course Additions (Approved 4-5-11)
Human Ecology 2-16-11

School of Family Studies and Human Services

ADD NEW COURSE

FSHS 727 Clinical Approaches to Family Health and Illness

Credits: (3)

Clinical approaches to health behaviors and chronic illness management are generally focused on the individual. This course will address contextual and relational factors that impact health and illness within family contexts. The course will explore ways to develop an integrated clinical approach to assess individuals and families attempting to manage a variety of medical conditions across the life span.

When Offered

Fall, Spring, Summer

RATIONALE: The proposed addition of this course is to make it a standing course in the School of Family Studies and Human Services; the course has previously been taught as a topics course in FSHS 700.

EFFECTIVE DATE: Summer 2011

IMPACT ON OTHER UNITS: None