College of Arts and Sciences
   Pages 2-10

College of Business Administration
   Pages 11-13

College of Engineering
   Pages 14-15

College of Human Ecology
   Pages 16-18

College of Technology and Aviation (K-State Salina)
   Pages 19-21

Graduate School
   Pages 22-28
College of Arts and Sciences (11-1)

NON-EXPEDITED COURSE PROPOSALS
Courses Numbered 000-599

Biochemistry

ADD: BIOCH 571 – Medical Biochemistry. (3) I. Covers medically related concepts, structures, pathways and mechanisms in biochemistry. Addresses the fundamental biochemistry behind veterinary, medical or dental topics and issues. Instructs in the fundamental principles of protein structure and function, enzymology, carbohydrate and lipid metabolism, hormones, biochemical energetics, membranes, nucleic acid and protein metabolism, information transfer and the genetic code, genomic and proteomic analyses, the interdependence of biochemical pathways, pathogenesis and additional new topics. Serves as preparatory for the MCAT/DAT/GRE examinations. Prerequisite: MATH 221, PHYS 114, CHM 350/351, BIOCH 521.

RATIONALE: The proposed advanced undergraduate course will consider fundamental biochemical topics in the context of human and veterinary medicine. This class is an integral component of the proposed new BA degree track in Medical Biochemistry. The overall curriculum will provide a comprehensive framework for students who require pre-medical, pre-veterinary, pre-dental and pre-nursing training prior to pursuing those advanced degrees. The proposed class will be administered in the Fall term of the junior year, which immediately precedes MCAT, DAT, and GRE testing in the Spring term of the junior year. Thus it will also serve as preparation for these elements of pre-professional training.

IMPACT: The class is potentially valuable to students in many programs, including Biology, Veterinary Medicine, Chemistry and Food Sciences, as preparation for future medical training or graduate study. Aside from standard background in Math, Physics and Chemistry, other prerequisites for the course originate from the Biochemistry department, so we expect little impact on other departments. At present, no equivalent classes exist at KSU.

EFFECTIVE DATE: Fall 2013

Sociology, Anthropology, and Social Work


TO: SOCWK 330 – Social Work Research Methods and Analysis I. (3) II. First of two research methods courses. Emphasis on social work research methodology and statistical analysis of small sample data sets. Content examines the ethics and processes of research. Social work majors only. Pr.: SOCWK 100 and MATH 100. K-State 8: Empirical and Quantitative Reasoning.
RATIONALE: The name and description change make the course focus and content more clear, particularly to the graduate social work education programs that evaluate undergraduate social work curriculum content to which our graduates have been exposed. The prerequisite of STAT 325 is eliminated for this course because MATH 100 is now required for SOCWK 330 and SOCWK has added content on small sample statistics (non-parametric) that are more relevant to social work research applications in practice.

IMPACT: None is anticipated. On February 17, 2012, in a telephone conversation with Jim Neill, Statistics Department Head, I advised him of our intent to drop STAT 325 as a prerequisite for this class. He indicated that was not a problem, and, if needed, he would write a letter to that effect.

EFFECTIVE DATE: Fall 2013


TO: SOCWK 530 – Social Work Research Methods and Analysis II. (3) I. Second of two research methods courses. Emphasis on designing and conducting social work research projects appropriate for baccalaureate social work practice. Attention given to research strategies for the evaluation of social work practice. Social work majors only. Pr.: SOCWK 330. K-State 8: Empirical and Quantitative Reasoning.

RATIONALE: The name and description change make the course focus and content more clear, particularly to graduate social work education programs that evaluate undergraduate social work curriculum content to which our graduates have been exposed. The prerequisite of STAT 325 is eliminated for this course because MATH 100 is now required for SOCWK 330 and SOCWK has added content on small sample statistics (non-parametric) that are more relevant to social work research applications in practice.

IMPACT: None is anticipated. On February 17, 2012, in a telephone conversation with Jim Neill, Statistics Department Head, I advised him of our intent to drop STAT 325 as a prerequisite for this class. He indicated that was not a problem, and, if needed, he would write a letter to that effect.

EFFECTIVE DATE: Fall 2013

CURRICULUM CHANGES
Undergraduate (Non-Expedited)

Art

BA in Art
The BA degree in Art consists of two concentrations, Studio Art and Art History. Both concentrations require the general education courses outlined under the humanities curriculum in the College of Arts and Sciences. Students majoring in Art must earn a total of 124 credit hours for graduation.

**BA in Studio Art Concentration:**

**Required Courses**

22 credits of the Core Foundation courses: (ART 100, 105, 200, 190, 210, 225, one 2D* core elective and one 3D** core elective.

9 credits in one Studio Area and 6 credits in another area (6 of these credits must be 300 level or above).

Areas of study include: ceramics, digital arts, drawing, graphic design, metalsmithing and jewelry, painting, photography, printmaking or sculpture.

12 credits of Art History***

**Bachelor’s degree requirements**

General requirements for undergraduate major

**Notes:**

*Two-dimensional core electives: ART 220 – Watermedia, ART 235- Printmaking I, ART 245 – Oil Painting, ART 290 – Type and Design, ART 295 – Photo I


***Art History requirements for the BA

ART 195 – Survey of Art History I Credits: (3)
ART 196 – Survey of Art History II Credits: (3)

Choose two from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 220 – Watermedia</td>
<td>(3)</td>
</tr>
<tr>
<td>ART 235 – Printmaking I</td>
<td>(3)</td>
</tr>
<tr>
<td>ART 245 – Oil Painting</td>
<td>(3)</td>
</tr>
<tr>
<td>ART 290 – Type and Design</td>
<td>(3)</td>
</tr>
<tr>
<td>ART 295 – Photo I</td>
<td>(3)</td>
</tr>
</tbody>
</table>

**BA in Art History Concentration:**

**Required Courses**

12 credits of Core Foundation courses (ART 100, 200, 190, and one core elective from 2D* or 3D** list below)

12 credits of Art History***

24 credits of Art History Concentration classes

12-14 credits of Tools and Related courses: (History, Literature, Architecture, Philosophy, Women’s Studies or Studio Courses).

**Bachelor’s degree requirements**

General requirements for undergraduate major

**Notes:**

*Two-dimensional core electives: Visual Communication Foundation, Oil Painting I, Photography in Art,

Area of study include: painting, printmaking, ceramics, sculpture, drawing, art history, metalsmithing and jewelry, graphic design, digital arts or photography.

Bachelor’s degree requirements

General requirements for undergraduate major

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.

Art history (12 credit hours)

ART 195 – Survey of Art History I Credits: (3)
ART 196 – Survey of Art History II Credits: (3)

Choose two from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 545 – Twentieth Century Art History I</td>
<td>(3)</td>
</tr>
<tr>
<td>ART 550 – Twentieth Century Art History II</td>
<td>(3)</td>
</tr>
<tr>
<td>ART 602 – Twentieth Century Art History III</td>
<td>(3)</td>
</tr>
<tr>
<td>ART 603 – Twentieth Century Art History IV</td>
<td>(3)</td>
</tr>
</tbody>
</table>

Foundation core (21 credit hours)

*Two-dimensional course choice Credits: (3)

**Three-dimensional course choice Credits: (3)

ART 100- 2-Dimensional Design Credits: (3)
ART 190 – Drawing I Credits: (3)
ART 200 – 3-Dimensional Design Credits: (3)
ART 210 – Drawing II Credits: (3)
ART 225 – Figure Drawing I Credits: (3)

Art electives (15 credit hours)

Major concentration (15 credit hours)

The bachelor of arts degree requires a minimum of 49 semester credit hours in art.

Notes

*Two-dimensional courses: Visual Communication Foundation, Oil Painting I, Photography in Art,
Printmaking I, Water Media I.  
**Three-dimensional courses: Ceramics I, Metalsmith and Jewelry, Sculpture I.**  

| ART 545 – Twentieth Century Art History I | Credits: (3)  
| ART 550 – Twentieth Century Art History II | Credits: (3)  
| ART 602 – Twentieth Century Art History III | Credits: (3)  
| ART 603 – Twentieth Century Art History IV | Credits: (3) |

RATIONALE: The BA in Art (with concentrations in Art History and Studio Art) have already been approved by Course and Curriculum and have been in practice for a number of years. But the catalog description is not clear. This is an effort to clarify in the catalog description what the two concentrations within the degree are.

IMPACT: None

EFFECTIVE DATE: Spring 2013

Biochemistry

BA in Biochemistry

FROM: Biochemistry seeks to understand the molecular events of life processes. It applies chemical and physical techniques to elucidate the structure and organization of molecules, particularly macromolecules that are responsible for the structural organization as well as operation and control of all cellular processes. The emerging knowledge has broad importance and consequences for all areas of the life sciences.

Bachelor’s degree requirements  
General requirements for undergraduate major:  
A total of 124 credit hours are required for graduation. The BA program is obtained by following the curriculum of the College of Arts and Sciences.

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.

TO: Biochemistry seeks to understand the molecular events of life processes. It applies chemical and physical techniques to elucidate the structure and organization of molecules, particularly macromolecules that are responsible for the structural organization as well as operation and control of all cellular processes. The emerging knowledge has broad importance and consequences for all areas of the life sciences.

Bachelor’s degree requirements  
General requirements for undergraduate major:  
A total of 120 credit hours are required for graduation. The BA program is obtained by following the curriculum of the College of Arts and Sciences.

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.

BA in Biochemistry
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOCH 100</td>
<td>Biochemistry Orientation Credits: (1)</td>
<td></td>
</tr>
<tr>
<td>BIOCH 290</td>
<td>Biochemistry Seminar Credits: (2)</td>
<td></td>
</tr>
<tr>
<td>BIOCH 522</td>
<td>General Biochemistry Lab Credits: (2)</td>
<td></td>
</tr>
<tr>
<td>BIOCH 755</td>
<td>Biochemistry I Credits: (3)</td>
<td></td>
</tr>
<tr>
<td>BIOCH 765</td>
<td>Biochemistry II Credits: (3)</td>
<td></td>
</tr>
<tr>
<td>BIOL 198</td>
<td>Principles of Biology Credits: (4)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Biological science electives Credits: (8)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Choose from the following:</td>
<td></td>
</tr>
<tr>
<td>CHM 210</td>
<td>Chemistry I Credits: (4)</td>
<td></td>
</tr>
<tr>
<td>CHM 230</td>
<td>Chemistry II Credits: (4)</td>
<td></td>
</tr>
<tr>
<td>CHM 371</td>
<td>Chemical Analysis Credits: (4)</td>
<td></td>
</tr>
<tr>
<td>CHM 220</td>
<td>Honors Chemistry I Credits: (5y)</td>
<td></td>
</tr>
<tr>
<td>CHM 250</td>
<td>Honors Chemistry II Credits: (5)</td>
<td></td>
</tr>
<tr>
<td>CHM 531</td>
<td>Organic Chemistry I Credits: (3)</td>
<td></td>
</tr>
<tr>
<td>CHM 532</td>
<td>Organic Chemistry Lab Credits: (2)</td>
<td></td>
</tr>
<tr>
<td>CHM 550</td>
<td>Organic Chemistry II Credits: (3)</td>
<td></td>
</tr>
<tr>
<td>MATH 220</td>
<td>Analytic Geometry and Calculus I Credits: (4)</td>
<td></td>
</tr>
<tr>
<td>MATH 221</td>
<td>Analytic Geometry and Calculus II Credits: (4)</td>
<td></td>
</tr>
<tr>
<td>PHYS 113</td>
<td>General Physics I Credits: (4)</td>
<td></td>
</tr>
<tr>
<td>PHYS 114</td>
<td>General Physics II Credits: (4)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>*Upper-division biochemistry or chemistry electives Credits: (3)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Biological science electives Credits: (8)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>*Upper-division biological science, statistics, computer science, analytical geometry and calculus III, or differential equations elective Credits: (3–4)</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** The courses above satisfy the mathematics and natural science requirements shown in the general requirements for the BA degree.

A&S requirements Credits (32)
Level 4 Foreign language Credits (4)

Total hours required for graduation (124 credit hours)
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 198</td>
<td>Principles of Biology</td>
<td>(4)</td>
</tr>
<tr>
<td>BIOL450</td>
<td>Modern Genetics</td>
<td>(4)</td>
</tr>
<tr>
<td>BIOL455</td>
<td>General Microbiology</td>
<td>(4)</td>
</tr>
<tr>
<td>BIOL541</td>
<td>Cell Biology</td>
<td>(3)</td>
</tr>
<tr>
<td>CHM 210</td>
<td>Chemistry I</td>
<td>(4)</td>
</tr>
<tr>
<td>CHM 230</td>
<td>Chemistry II</td>
<td>(4)</td>
</tr>
<tr>
<td>CHM 371</td>
<td>Chemical Analysis</td>
<td>(4)</td>
</tr>
<tr>
<td>CHM350</td>
<td>Gen Org Chem</td>
<td>(3)</td>
</tr>
<tr>
<td>CHM351</td>
<td>Gen Org Lab</td>
<td>(2)</td>
</tr>
<tr>
<td>MATH 220</td>
<td>Analytic Geometry and Calculus</td>
<td>(4)</td>
</tr>
<tr>
<td>MATH 221</td>
<td>Analytic Geometry and Calculus II</td>
<td>(4)</td>
</tr>
<tr>
<td>PHYS 113</td>
<td>General Physics I</td>
<td>(4)</td>
</tr>
<tr>
<td>PHYS 114</td>
<td>General Physics II</td>
<td>(4)</td>
</tr>
<tr>
<td>STAT701</td>
<td>Fundamentals of Biostatistics</td>
<td>(3)</td>
</tr>
</tbody>
</table>

*Upper-division biochemistry, chemistry, biological science, statistics, computer science, analytical geometry and calculus III, or differential equations elective Credits: (20)*

**Note:** These courses satisfy the mathematics and natural science requirements shown in the general requirements for the BA degree.

**A&S requirements Credits (32)**
- Level 4 Foreign language Credits (4)

**Total hours required for graduation (120 credit hours)**

**RATIONALE:** Biochemistry seeks approval for the modification of its B.A. degree program to substitute the existing class BIOCH110 (Biochemistry and Society – 3 credits) for BIOCH100 (Biochemistry Orientation – 1 credit). This change will improve the educational experience of 1st year students in the Biochemistry B.A. degree program, by exposing them to the more stimulating and broad subject matter of BIOCH110. In this plan we also recommend the substitution of CHM350/351 (General Organic Chemistry/Lab) for CHM531/532/550. The more rigorous path of CHM531/532/550 will remain as an elective option, as are Honors General Chemistry CHM220/250 and Engineering Physics PHYS 213/214. We will require STAT703 (Statistical Methods for Natural Scientists). Biochemistry also seeks modification of the existing B.A. degree to include a track in Medical Biochemistry.
This program will provide a comprehensive educational framework for students who require pre-veterinary, pre-medical, pre-dental or pre-nursing training prior to pursuing those advanced degrees. The program is in part based on the need for different, specialized training in Biochemistry for students who are preparing for careers in medicine or affiliated fields. This aim is consistent with recent recommendations from the American Association of Medical Colleges (AAMC) and the American Society of Biochemistry and Molecular Biology (ASBMB; attached). We composed a curriculum that addresses the intent of the AAMC and the advice of the ASBMB to emphasize biochemistry in future pre-vet/pre-medical/pre-dent training and testing. We expect that this new degree program at KSU will better serve Kansans who are studying for medically related careers, by providing improved background and better preparation for MCAT, DAT, and GRE testing. Specific classes toward these ends include Biochemistry and Society (BIOCH110), administered in the 1st year, General Biochemistry (BIOCH 521) in the 2nd year, Biochemistry I and II laboratories (BIOCH756,757) and the new course, Medical Biochemistry (BIOCH571; see attached description) in the 3rd year. In this plan, consistent with the recommendations of the AAMC, the ASBMB, and the changing admission requirements of many medical schools (including the University of Kansas) we substitute CHEM350/351 (General Organic Chemistry/Lab) for CHEM531/532/550 and we require STAT701 (Fundamentals of Biostatistics). Honors General Chemistry CHM220/250 and Engineering Physics PHYS 213/214 are elective options. These proposed modifications will divide the BA degree program into two tracks: the standard biochemistry option, and the medical biochemistry option (shown here).

IMPACT: The substitution of CHEM350/351 (General Organic Chemistry/Lab) in place of CHEM 531/532/550, which will result in a change in their relative enrollments by students in Biochemistry. The program requires STAT703 (Statistical Methods for Natural Scientists), which will result in additional enrollment. The Biochemistry department currently has 85 undergraduate majors. Aside from these changes we do not anticipate that the new program will affect other units. We will require BIOL 450, 455 and 541, but we already advise students to take these classes, so this requirement will have little new impact.

EFFECTIVE DATE: Fall 2013

BS in Biochemistry

<table>
<thead>
<tr>
<th>FROM:</th>
<th>TO:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biochemistry seeks to understand the molecular events of life processes. It applies chemical and physical techniques to elucidate the structure and organization of molecules, particularly macromolecules that are responsible for the structural organization as well as operation and control of all cellular processes. The emerging knowledge has broad importance and consequences for all areas of the life sciences.</td>
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</tr>
</tbody>
</table>

Bachelor's degree requirements Bachelor's degree requirements
General requirements for undergraduate major:
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.

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.

**BIOCH 100 - Biochemistry Orientation** Credits: (1)
**BIOCH 290 - Biochemistry Seminar** Credits: (2)
**BIOCH 590 - Physical Studies Biomacromolecules** Credits: (3)
**BIOCH 755 - Biochemistry I** Credits: (3)
**BIOCH 756 - Biochemistry I Lab** Credits: (2)
**BIOCH 765 - Biochemistry II** Credits: (3)
**BIO 198 - Principles of Biology** Credits: (4)

Choose from the following:
**CHM 210 - Chemistry I** Credits: (4)
**CHM 230 - Chemistry II** Credits: (4)
**CHM 371 - Chemical Analysis** Credits: (4)
**or**
**CHM 220 - Honors Chemistry I** Credits: (5)
**CHM 250 - Honors Chemistry II** Credits: (5)
**CHM 531 - Organic Chemistry I** Credits: (3)
**CHM 532 - Organic Chemistry Lab** Credits: (2)
**CHM 550 - Organic Chemistry II** Credits: (3)
**CHM 500 - General Physical Chemistry** Credits: (3)
**MATH 220 - Analytic Geometry and Calculus** Credits: (4)
**MATH 221 - Analytic Geometry and Calculus II** Credits: (4)
**PHYS 113 - General Physics I** Credits: (4)
**PHYS 114 - General Physics II** Credits: (4)

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*Upper-division biochemistry or chemistry electives* Credits: (3)
*Biological science electives* Credits: (8)

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General requirements for undergraduate major:
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.

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.

**BIOCH 110 Biochem & Society** Credits (3)
**BIOCH 775 Molecular Biophysics** Credits (3)
**BIOCH 755 - Biochemistry I** Credits: (3)
**BIOCH 756 - Biochemistry I Lab** Credits: (2)
**BIOCH 765 - Biochemistry II** Credits: (3)
**BIOCH 799 Problems in Biochemistry** Credits (1-3)

**BIOL 198 - Principles of Biology** Credits: (4)
**BIOL 450 Modern Genetics** Credits (4)
**BIOL 455 General Microbiology** Credits (4)
**BIOL 541 Cell Biology** Credits (3)

---

Choose from the following:
**CHM 210 - Chemistry I** Credits: (4)
**CHM 230 - Chemistry II** Credits: (4)
**CHM 371 - Chemical Analysis** Credits: (4)
**or**
**CHM 220 - Honors Chemistry I** Credits: (5)
**CHM 250 - Honors Chemistry II** Credits: (5)
**CHM 531 - Organic Chemistry I** Credits: (3)
**CHM 532 - Organic Chemistry Lab** Credits: (2)
**CHM 550 - Organic Chemistry II** Credits: (3)
**CHM 500 - General Physical Chemistry** Credits: (3)
**MATH 220 - Analytic Geometry and Calculus** Credits: (4)
**MATH 221 - Analytic Geometry and Calculus II** Credits: (4)
**PHYS 113 - General Physics I** Credits: (4)
**PHYS 114 - General Physics II** Credits: (4)

**STAT 703 Stat Methods for Nat Scientists**

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*Upper-division biochemistry, chemistry, biological sciences, statistics, computer science, analytical geometry and calculus III, or...
<table>
<thead>
<tr>
<th>Biology, statistics, or computer science, analytical geometry and calculus III, or differential equations elective Credits: (3–4)</th>
<th>differential equations elective Credits: (16-18)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;Must include at least one credit hour of BIOCH 799 Problems in Biochemistry. Up to two credit hours of Advanced Biochemistry Laboratories (BIOCH 757, BIOCH 758, BIOCH 766, BIOCH 767) can be applied towards this requirement.</td>
<td>Up to two credit hours of Advanced Biochemistry Laboratories (BIOCH 757, BIOCH 758, BIOCH 766, BIOCH 767) can be applied towards the requirement for BIOCH 799 Problems in Biochemistry.</td>
</tr>
<tr>
<td>Total hours required for graduation (124 credit hours)</td>
<td>Total hours required for graduation (124 credit hours)</td>
</tr>
<tr>
<td>Note: The courses in the list above satisfy the natural sciences and quantitative reasoning requirements shown in the general requirements for the BS degree.</td>
<td>Note: The courses in the list above satisfy the natural sciences and quantitative reasoning requirements shown in the general requirements for the BS degree.</td>
</tr>
<tr>
<td>A&amp;S requirements Credits (32)</td>
<td>A&amp;S requirements Credits (32)</td>
</tr>
</tbody>
</table>

**RATIONALE:** Biochemistry is seeking approval for the modification of its B.S. degree program to substitute the existing class BIOCH 110 (Biochemistry and Society – 3 credits) for BIOCH 100 (Biochemistry Orientation – 1 credit), and to substitute a new class entitled Molecular Biophysics (see attached description – 3 credits) for BIOCH 590 (Physical Studies of Biomacromolecules – 3 credits). This change will improve the educational experience of 1st year students in the Biochemistry B.S. degree program, by exposing them to the more stimulating subject matter of BIOCH 110. The proposed new name of BIOCH 590 does not affect its content; we desire the new name for consistency with the anticipated change in our departmental title to Biochemistry and Molecular Biophysics. Additionally, we stipulate the substitution of CHM 350/351 (General Organic Chemistry/Lab) for CHM 531/532/550. The more rigorous path of CHM 531/532/550, as well as Honors General Chemistry CHM 220/250 and Engineering Physics PHYS 213/214, remain optional in the new plan.

**IMPACT:** The substitution of CHEM 350/351 (General Organic Chemistry/Lab) in place of CHEM 531/532/550 will result in a change in their relative enrollments by students in Biochemistry. The program requires STAT 703 (Statistical Methods for Natural Scientists), which will result in additional enrollment. The Biochemistry department currently has 85 undergraduate majors. Aside from these changes we do not anticipate that the new program will affect other units. We will require BIOL 450, 455 and 541, but we already advise students to take these classes, so this requirement will have little new impact.

**EFFECTIVE DATE:** Fall 2013
MKTG 580 – Business Intelligence for Strategic Decision Making  
Credits: (3)  
Business Intelligence is a systematic approach to harnessing customer data and competitive information to drive strategic business decision making. This course deals with how to collect and analyze business data to enhance quality of decision making in modern enterprises. Unlike courses based on data mining (inductive approach), this course will be largely based on regression techniques (deductive approach). The course will be based on lectures, case analysis, and hands on exercises to make students comfortable with powerful computing tools used for data analysis. The cases and exercises will be bundled with data which will be used to apply concepts learned in class to real business situations.

Requisites
Prerequisite: Stat 350 Business and Economic Statistics I or equivalent

When Offered
Fall

UGE course
No

K-State 8
Empirical and Quantitative Reasoning
Social Sciences

Rationale: “Big data” became a keyword in business. Companies increasingly rely on data analysis to understand market trend and formulate business strategy. However, there is a shortage of managers to analyze big data and make a decision based on their findings. Employers are eager to hire people who have solid analytical skills, but there is no marketing course that can provide students with such skills. This course will offer valuable skill sets required by the current business environment.

Impact on Other Units: None.

Effective Date: Fall 2013
### MARKETING (B.S.)

#### Major Field Requirements (15 credit hours)

- MKTG 450 - Consumer Behavior **Credits:** (3)
- MKTG 542 - Professional Selling **Credits:** (3)
- MKTG 544 - International Marketing **Credits:** (3)
- MKTG 642 - Marketing Research **Credits:** (3)
- MKTG 690 - Marketing Management **Credits:** (3)

#### Major Field Electives (9 credit hours)

- MKTG 496 - Special Topics in Marketing **Credits:** 3
- MKTG 497 - Topics in Financial Services Marketing **Credits:** (3)
- MKTG 541 - Retailing **Credits:** (3)
- MKTG 543 - Integrated Marketing Communications **Credits:** (3)
- MKTG 545 - Marketing Channels **Credits:** (3)
- MKTG 546 - Services Marketing **Credits:** (3)
- MKTG 547 - International Business **Credits:** (3)
- MKTG 550 - Business Marketing **Credits:** (3)
- MKTG 560 – Sales Management **Credits:** (3)
- MKTG 570 – Advanced Selling **Credits:** (3)
- MKTG 630 - Sports Marketing **Credits:** (3)
- MKTG 635 - Electronic Marketing **Credits:** (3)

#### Economics electives (6 credit hours)

### MARKETING (B.S.)

#### Major Field Requirements (15 credit hours)

- MKTG 450 - Consumer Behavior **Credits:** (3)
- MKTG 542 - Professional Selling **Credits:** (3)
- MKTG 544 - International Marketing **Credits:** (3)
- MKTG 642 - Marketing Research **Credits:** (3)
- MKTG 690 - Marketing Management **Credits:** (3)

#### Major Field Electives (9 credit hours)

- MKTG 496 - Special Topics in Marketing **Credits:** 3
- MKTG 497 - Topics in Financial Services Marketing **Credits:** (3)
- MKTG 541 - Retailing **Credits:** (3)
- MKTG 543 - Integrated Marketing Communications **Credits:** (3)
- MKTG 545 - Marketing Channels **Credits:** (3)
- MKTG 546 - Services Marketing **Credits:** (3)
- MKTG 547 - International Business **Credits:** (3)
- MKTG 550 - Business Marketing **Credits:** (3)
- MKTG 560 – Sales Management **Credits:** (3)
- MKTG 570 – Advanced Selling **Credits:** (3)
- MKTG 580 – Business Intelligence **Credits:** (3)
- MKTG 630 - Sports Marketing **Credits:** (3)
- MKTG 635 - Electronic Marketing **Credits:** (3)

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

### Unrestricted electives (12 credit hours)

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

### Total hours required for graduation (126 credit hours)

| Rationale: | New course MKTG 580 – Business Intelligence (for Strategic Decision Making) has been added as marketing elective in the marketing curriculum. |
| Impact on Other Units: | None. |
| Effective Date: | Fall 2013 |
New Course
Civil Engineering

CE 202 Civil Engineering Graphics (2) Fall, Spring. This course will include drafting, technical sketching, projective geometry, multiview drawings, reading and interpreting drawings, sectioning, dimensioning, and computer aided design (CAD) to produce basic civil engineering drawings. The course will be taught in one lecture and one lab per week. The following Student Outcome applies: 1.4. Each student will demonstrate the ability to use modern computational, laboratory, and field techniques/tools used in civil engineering.

**Requisites:** Enrolled in Civil Engineering Program

**Rationale:** Engineering drafting and drawing using Computer Aided Drafting (CAD) is essential for civil engineers to understand and create engineering plans and design drawings.

**Impact:** Civil engineering students will stop taking ME 212 Engg. Graphics. The Mechanical and Nuclear Engineering Department fully supports this change.

**Effective Date:** Fall 2013

Non-Expedited Undergraduate Curriculum Change
Civil Engineering – B.S.

<table>
<thead>
<tr>
<th>From:</th>
<th>To:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Freshman year</strong></td>
<td><strong>Freshman year</strong></td>
</tr>
<tr>
<td>Fall semester (17 credit hours)</td>
<td>Fall semester (17 credit hours)</td>
</tr>
<tr>
<td>- CE 015 - Engineering Assembly Credits: (0)</td>
<td>- CE 015 - Engineering Assembly Credits: (0)</td>
</tr>
<tr>
<td>- CE 101 - Introduction to Civil Engineering Credits: (1)</td>
<td>- CE 101 - Introduction to Civil Engineering Credits: (1)</td>
</tr>
<tr>
<td>- CHM 210 - Chemistry I Credits: (4)</td>
<td>- CHM 210 - Chemistry I Credits: (4)</td>
</tr>
<tr>
<td>- ECON 110 - Principles of Macroeconomics Credits: (3)</td>
<td>- ECON 110 - Principles of Macroeconomics Credits: (3)</td>
</tr>
<tr>
<td>- * ENGL 100 - Expository Writing I Credits: (3)</td>
<td>- * ENGL 100 - Expository Writing I Credits: (3)</td>
</tr>
<tr>
<td>- MATH 220 - Analytic Geometry and Calculus I Credits: (4)</td>
<td>- MATH 220 - Analytic Geometry and Calculus I Credits: (4)</td>
</tr>
<tr>
<td>- CE 202 – Civil Engineering Graphics Credits: (2)</td>
<td>- CE 202 – Civil Engineering Graphics Credits: (2)</td>
</tr>
<tr>
<td><strong>Spring semester (17 credit hours)</strong></td>
<td>Spring semester (17 credit hours)</td>
</tr>
<tr>
<td>- <strong>Track elective Credits: (3)</strong></td>
<td>- <strong>Track elective Credits: (3)</strong></td>
</tr>
<tr>
<td>- CE 015 - Engineering Assembly Credits: (0)</td>
<td>- CE 015 - Engineering Assembly Credits: (0)</td>
</tr>
<tr>
<td>- CHM 230 - Chemistry II Credits: (4)</td>
<td>- CHM 230 - Chemistry II Credits: (4)</td>
</tr>
<tr>
<td>- CIS 209 - C Programming for Engineers Credits: (3)</td>
<td>- CIS 209 - C Programming for Engineers Credits: (3)</td>
</tr>
<tr>
<td>- GEOL 100 - Earth in Action Credits: (3)</td>
<td>- GEOL 100 - Earth in Action Credits: (3)</td>
</tr>
<tr>
<td>- MATH 221 - Analytic Geometry and Calculus II Credits: (4)</td>
<td>- MATH 221 - Analytic Geometry and Calculus II Credits: (4)</td>
</tr>
<tr>
<td><strong>Sophomore year</strong></td>
<td><strong>Sophomore year</strong></td>
</tr>
<tr>
<td>Fall semester (17 credit hours)</td>
<td>Fall semester (17 credit hours)</td>
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<tr>
<td>- <strong>Track elective Credits: (3)</strong></td>
<td>- <strong>Track elective Credits: (3)</strong></td>
</tr>
<tr>
<td>- CE 015 - Engineering Assembly Credits: (0)</td>
<td>- CE 015 - Engineering Assembly Credits: (0)</td>
</tr>
<tr>
<td>- CE 212 - Elementary Surveying Engineering Credits: (3)</td>
<td>- CE 212 - Elementary Surveying Engineering Credits: (3)</td>
</tr>
<tr>
<td>- COMM 105 - Public Speaking IA Credits: (2)</td>
<td>- COMM 105 - Public Speaking IA Credits: (2)</td>
</tr>
<tr>
<td>- MATH 222 - Analytic Geometry and Calculus III Credits: (4)</td>
<td>- MATH 222 - Analytic Geometry and Calculus III Credits: (4)</td>
</tr>
<tr>
<td>- PHYS 213 - Engineering Physics I Credits: (5)</td>
<td>- PHYS 213 - Engineering Physics I Credits: (5)</td>
</tr>
<tr>
<td><strong>Spring semester (16 credit hours)</strong></td>
<td><strong>Spring semester (16 credit hours)</strong></td>
</tr>
</tbody>
</table>
### Junior Year

**Fall semester (16 credit hours)**
- **Track 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)

**Spring semester (15 credit hours)**
- **Track 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)

### Senior Year

**Fall semester (15 credit hours)**
- **Civil engineering design electives Credits**: (6)
- **Track elective Credits**: (3)
- **General education humanities or social science elective Credits**: (3)
- **CE 015 - Engineering Assembly Credits**: (0)
- **CE 550 - Water Resources Engineering Credits**: (3)

**Spring semester (15 credit hours)**
- **Civil engineering design electives Credits**: (6)
- **Track elective Credits**: (3)
- **General education humanities or social science elective Credits**: (3)
- **CE 015 - Engineering Assembly Credits**: (0)
- **CE 550 - Water Resources Engineering Credits**: (3)

### Rationale:
ME 212 Eng. Graphics plans to use SolidWorks software. The civil engineering industry mostly uses AutoCAD. We desire to provide exposure of this powerful engineering tool to civil engineering students.

### Impact (i.e. if this impacts another unit):
Civil engineering students will stop taking ME 212 offered by the Mechanical and Nuclear Engineering Department. The MNE Dept. is fully supportive of this change.

### Effective Date:
Fall 2013
### Human Nutrition (B.S.) - Nutritional Sciences

<table>
<thead>
<tr>
<th>Change From:</th>
<th>Change To:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Human Nutrition (B.S.) - Nutritional Sciences</strong></td>
<td><strong>Human Nutrition (B.S.) - Nutritional Sciences</strong></td>
</tr>
<tr>
<td><strong>General requirements (61-62 credit hours)</strong></td>
<td><strong>General requirements (35-38 credit hours)</strong></td>
</tr>
<tr>
<td><strong>Communications (11-12 credit hours)</strong></td>
<td><strong>Communications (11-12 credit hours)</strong></td>
</tr>
<tr>
<td>• ENGL 100 - Expository Writing I <strong>Credits:</strong> (3)</td>
<td>• ENGL 100 - Expository Writing I <strong>Credits:</strong> (3)</td>
</tr>
<tr>
<td>• ENGL 200 - Expository Writing II <strong>Credits:</strong> (3)</td>
<td>• ENGL 200 - Expository Writing II <strong>Credits:</strong> (3)</td>
</tr>
<tr>
<td>• ENGL 516 - Written Communication for the Sciences <strong>Credits:</strong> (3)</td>
<td>• ENGL 516 - Written Communication for the Sciences <strong>Credits:</strong> (3)</td>
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<tr>
<td><strong>One of the following courses</strong></td>
<td><strong>One of the following courses</strong></td>
</tr>
<tr>
<td>• COMM 105 - Public Speaking IA <strong>Credits:</strong> (2)</td>
<td>• COMM 105 - Public Speaking IA <strong>Credits:</strong> (2)</td>
</tr>
<tr>
<td>or</td>
<td>or</td>
</tr>
<tr>
<td>• COMM 106 - Public Speaking I <strong>Credits:</strong> (3)</td>
<td>• COMM 106 - Public Speaking I <strong>Credits:</strong> (3)</td>
</tr>
<tr>
<td><strong>Social Science (9 credit hours)</strong></td>
<td><strong>Social Science (9 credit hours)</strong></td>
</tr>
<tr>
<td>• ECON 110 - Principles of Macroeconomics <strong>Credits:</strong> (3)</td>
<td>• ECON 110 - Principles of Macroeconomics <strong>Credits:</strong> (3)</td>
</tr>
<tr>
<td>• PSYCH 110 - General Psychology <strong>Credits:</strong> (3)</td>
<td>• PSYCH 110 - General Psychology <strong>Credits:</strong> (3)</td>
</tr>
<tr>
<td>• SOCIO 211 - Introduction to Sociology <strong>Credits:</strong> (3)</td>
<td>• SOCIO 211 - Introduction to Sociology <strong>Credits:</strong> (3)</td>
</tr>
<tr>
<td><strong>Humanities electives (6 credit hours)</strong></td>
<td><strong>Humanities electives (6 credit hours)</strong></td>
</tr>
<tr>
<td>(Only a course of 3 credits or more will apply.)</td>
<td>(Only a course of 3 credits or more will apply.)</td>
</tr>
<tr>
<td><strong>Natural Sciences (28 credit hours)</strong></td>
<td><strong>Natural and Physical Sciences</strong></td>
</tr>
<tr>
<td>(See Professional Studies)</td>
<td>(See Professional Studies)</td>
</tr>
<tr>
<td><strong>Quantitative Studies (7 credit hours)</strong></td>
<td><strong>Quantitative Studies (7 credit hours)</strong></td>
</tr>
<tr>
<td>• MATH 220 - Analytic Geometry and Calculus I <strong>Credits:</strong> (4)</td>
<td>• STAT 325 - Introduction to Statistics <strong>Credits:</strong> (3)</td>
</tr>
<tr>
<td><strong>One of the following courses</strong></td>
<td>or</td>
</tr>
<tr>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>• or</td>
<td>or</td>
</tr>
</tbody>
</table>
### Biological Sciences (20 credit hours)

- BOL 198 - Principles of Biology **Credits**: (4)
- BOL 340 - Structure and Function of the Human Body **Credits**: (8)
- BOL 450 - Modern Genetics **Credits**: (4)
- BOL 455 - General Microbiology **Credits**: (4)

### Physical Sciences (8 credit hours)

- PHYS 113 - General Physics I **Credits**: (4)
- PHYS 114 - General Physics II **Credits**: (4)

### Quantitative Studies (7 credit hours)

- MATH 220 - Analytic Geometry and Calculus I **Credits**: (4)

One of the following courses

- STAT 325 - Introduction to Statistics **Credits**: (3)
- or
- STAT 340 - Biometrics I **Credits**: (3)

### Professional studies (34 credit hours)

*(Grade of C or higher required.)*

- HN 132 - Basic Nutrition **Credits**: (3)
- HN 400 - Human Nutrition **Credits**: (3)
- HN 413 - Science of Food **Credits**: (4)
- HN 450 - Nutritional Assessment **Credits**: (2)
- HN 510 - Life Span Nutrition **Credits**: (3)
- HN 535 - Energy Balance **Credits**: (2)
- HN 600 - Public Health Nutrition **Credits**: (3)
- HN 620 - Nutrient Metabolism **Credits**: (3)
- HN 631 - Clinical Nutrition I **Credits**: (2)
- HN 632 - Clinical Nutrition II **Credits**: (3)

One of the following courses

- FSHS 350 - Family Relationships and Gender Roles **Credits**: (3)
- or
- GNHE 310 - Human Needs **Credits**: (3)

### Supporting courses (21 credit hours)

*(Grade of C or higher required)*

- BOL 521 - General Biochemistry **Credits**: (3)
- BOL 522 - General Biochemistry Laboratory **Credits**: (2)
- CHM 210 - Chemistry I **Credits**: (4)
- CHM 330 - Chemistry II **Credits**: (4)

### Integrative Human Ecology Courses (2-4 hours)

- GNHE 210 – Foundations of Human Ecology **Credits**: (1)
- College of Human Ecology Electives **Credits**: (1-3)

### Professional studies (75 credit hours)

*(Grade of C or higher required.)*

### Biological Sciences (20 credit hours)

- BOL 198 - Principles of Biology **Credits**: (4)
- BOL 340 - Structure and Function of the Human Body **Credits**: (8)
- BOL 450 - Modern Genetics **Credits**: (4)
- BOL 455 - General Microbiology **Credits**: (4)

### Physical Sciences (27 credit hours)

- PHYS 113 - General Physics I **Credits**: (4)
- PHYS 114 - General Physics II **Credits**: (4)
- CHM 210 – Chemistry I **Credits**: (4)
- CHM 230 – Chemistry II **Credits**: (4)
- CHM 531 – Organic Chemistry I **Credits**: (3)
- CHM 550 – Organic Chemistry II **Credits**: (3)
- CHM 532 – Organic Chemistry LAB **Credits**: (2)
- BOL 521 – General Biochemistry **Credits**: (3)

### Nutrition (28 hours)

- HN 132 – Basic Nutrition **Credits**: (3)
- HN 400 – Human Nutrition **Credits**: (3)
- HN 413 – Science of Food **Credits**: (4)
- HN 450 – Nutritional Assessment **Credits**: (2)
- HN 510 – Life Span Nutrition **Credits**: (3)
- HN 535 – Energy Balance **Credits**: (2)
- HN 600 – Public Health Nutrition **Credits**: (3)
- HN 620 – Nutrient Metabolism **Credits**: (3)
- HN 631 – Clinical Nutrition I **Credits**: (2)
- HN 632 – Clinical Nutrition II **Credits**: (3)

### Unrestricted electives (7-10 credit hours)

Total credit hours required for graduation (120)
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHM 531</td>
<td>Organic Chemistry I</td>
<td>(3)</td>
</tr>
<tr>
<td>CHM 532</td>
<td>Organic Chemistry Laboratory</td>
<td>(2)</td>
</tr>
<tr>
<td>CHM 550</td>
<td>Organic Chemistry II</td>
<td>(3)</td>
</tr>
</tbody>
</table>

**Unrestricted electives (6-7 credit hours)**

**Total credit hours required for graduation (120)**

**Rationale:**
1) Added that a C or higher is required for General Requirement courses. The higher grade requirements reflect the need for students to be academically competitive for professional schools and/or graduate schools. 2) GNHE 310/FSHS 350 is replaced by GNHE 210 to align with the College of Human Ecology’s new curriculum. 3) The Additional Integrative Studies heading was added for GNHE 210 and a 1-3 hour College of Human Ecology Elective required added to meet the 30 hours of College of Human Ecology credit requirement. 4) The Natural Sciences heading was deleted because the Biological Sciences and Physical Sciences headings are descriptive enough on their own. 5) General Biochemistry Lab BIOCH 522 (2 hours) is removed from the degree. This course isn’t a prerequisite for another course in the curriculum or a requirement for most of the post graduate options that Nutritional Sciences students pursue. 6) The Supporting Courses heading is deleted with the courses moved under physical sciences. Physical Sciences are increased to 27 hours. 5) Biological Sciences & Physical Sciences are moved under Professional Studies. 6) The Nutrition Heading is added above the Nutrition courses. 9) Unrestrictive elective hours are reduced from 10-11, to 7-10 hours.

**Impact:** This change would impact the Biochemistry department since there will likely be fewer students in BIOCH 522.

Correspondence has been received from Dr. Michael Kanost, Biochemistry Department Head acknowledging the course drop.

**Effective:** Spring, 2013
AVT 498. Research Project. (1-9) Fall, Spring, Summer. Research, scholarly and creative activities in the aviation field. Working with faculty on a current research project. The specific course content varies in accordance with current projects. Pr.: Junior or senior standing.
   K-State 8: None

RATIONALE: This course is needed to give aviation students opportunities for research experience in accordance with K-State 2025 goals.

IMPACT: No impact on any other department.

EFFECTIVE DATE: Fall 2013

   K-State 8: None

RATIONALE: This course allows the student to build flight time and increase pilot skills for the commercial certificate like PPIL 212 does for the fixed-wing pilots.

IMPACT: No impact on any other department.

EFFECTIVE DATE: Fall 2013

PPIL 365. Environmental Helicopter Operations. (3) Spring. Foundational instruction for helicopter operations in varying terrain and environmental conditions. Topics include helicopter flight in diverse terrain and climate, principles of flight close to the earth, and avoidance of both natural and man-made hazards. Emphasis on aeronautical decision making and cockpit resource management. Pr.: Junior standing or instructor consent.
   K-State 8: None

RATIONALE: This course provides students with the knowledge of helicopter operations in adverse terrain and weather conditions.

IMPACT: No impact on any other department.

EFFECTIVE DATE: Fall 2013

PPIL 484. Certified Instrument Flight Instructor Helicopter Flight Lab. (1) Fall, Spring, Summer. Instrument instruction techniques, practices, and procedures necessary to provide skills in organizing and presenting lessons in instrument flying
procedures. Prepares the student for the FAA Certified Instrument Flight Instructor practical test. Six hours lab a week. Pr.: PPIL 352. Coreq.: PPIL 482.
K-State 8:
None

RATIONALE: This course is being added to the new helicopter only curriculum to allow the student to achieve the knowledge and skills to pass the FAA Helicopter Certified Instrument Flight Instructor practical test.

IMPACT: No impact on any other department.

EFFECTIVE DATE: Fall 2013

Department of Engineering Technology

Primary Contact Person: Les Kinsler
Engineering Technology Interim Department Head
Phone: 785-826-2671, Fax: 785-826-2941
Email: kinsmo@k-state.edu

ADD:

CET 340. Mechanical and Electrical Systems. (3) Spring. The study of the use of mechanical and electrical systems within constructed buildings. Students develop skills related to plumbing, heating, air conditioning, wiring, power, and lighting systems.
K-State 8:
• Empirical and Quantitative Reasoning
• Natural and Physical Sciences

RATIONALE: This course allows the engineering technology department to offer students an introduction to building codes, measurements, and best practices in the areas of plumbing, heating, air conditioning, electrical power, and lighting.

IMPACT: No impact on any other department.

EFFECTIVE DATE: Fall 2013
### Department of Engineering Technology

#### Associate of Technology in Engineering Technology, Construction Engineering Technology option

<table>
<thead>
<tr>
<th>Current:</th>
<th>Proposed:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Construction Engineering Technology option (AETA-CN)</strong></td>
<td><strong>Construction Engineering Technology option (AETA-CN)</strong></td>
</tr>
<tr>
<td>64 hours required for graduation</td>
<td>62 hours required for graduation</td>
</tr>
</tbody>
</table>

#### Freshman

**Fall semester (16 credit hours)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CET 120</td>
<td>Materials Sampling and Testing</td>
<td>2</td>
</tr>
<tr>
<td>CMST 108</td>
<td>PC Desktop Software</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 100</td>
<td>Expository Writing I</td>
<td>3</td>
</tr>
<tr>
<td>ETA 020</td>
<td>Engineering Technology Seminar</td>
<td>0</td>
</tr>
<tr>
<td>MATH 100</td>
<td>College Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MATH 151</td>
<td>Applied Plane Trigonometry</td>
<td>2</td>
</tr>
<tr>
<td>MET 111</td>
<td>Technical Graphics</td>
<td>3</td>
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</tbody>
</table>

**Spring semester (17 credit hours)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CET 130</td>
<td>Plane Surveying</td>
<td>4</td>
</tr>
<tr>
<td>CET 320</td>
<td>Construction Materials</td>
<td>2</td>
</tr>
<tr>
<td>COMM 105</td>
<td>Public Speaking IA</td>
<td>2</td>
</tr>
<tr>
<td>PHYS 113</td>
<td>General Physics I</td>
<td>4</td>
</tr>
<tr>
<td>University General Education Elective</td>
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</table>

#### Sophomore

**Fall semester (16 credit hours)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CET 210</td>
<td>Problem Solving with Computer Apps</td>
<td>2</td>
</tr>
<tr>
<td>CET 241</td>
<td>Construction Methods and Estimating</td>
<td>2</td>
</tr>
<tr>
<td>CET 341</td>
<td>Mechanical Systems</td>
<td>3</td>
</tr>
<tr>
<td>CET 350</td>
<td>Site Construction</td>
<td>3</td>
</tr>
<tr>
<td>CET 410</td>
<td>Managerial and Engineering Economics</td>
<td>3</td>
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<tr>
<td>University General Education Elective</td>
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</tbody>
</table>

**Spring semester (15 credit hours)**

<table>
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<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CET 211</td>
<td>Statics</td>
<td>3</td>
</tr>
<tr>
<td>CET 241</td>
<td>Construction Methods and Estimating</td>
<td>2</td>
</tr>
<tr>
<td>CET 350</td>
<td>Site Construction</td>
<td>3</td>
</tr>
<tr>
<td>CET 410</td>
<td>Managerial and Engineering Economics</td>
<td>3</td>
</tr>
<tr>
<td>Humanities/social science/business elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Technical elective*</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

#### Technical Electives from approved list of the following:

- CET 210 Problem Solving with Computer Applications (2) or CNS 200 (2)
- CET 220 Soils and Foundations (2)
- CET 222 Construction Safety (2)
- CET 299 Topics in Construction Engineering Technology (Var.)
- CET 312 Transportation Systems (3)
- CET 323 Route Location Surveying (3)
- ECET 100 Basic Electronics (4)
- MET 245 Materials Strength and Testing (3)
- (Or others as approved by the Engineering Technology Department Head)

#### Rationale:

This proposal allows the Construction Engineering Technology option to deliver more flexible course offerings with limited faculty resources. As much as possible, this proposal keeps intact material foundational to the curriculum.

#### Impact:

No impact on other departments.

#### Effective Date:

Fall 2013
GRADUATE SCHOOL (11-6-12)

College of Human Ecology

Department of Human Nutrition

ADD:

HN 711 Pet Food Sensory Analysis

Credits: 2

Sensory analysis of food and other products for non-food animals (e.g. dogs and cats with mention of other species) with an emphasis on methods (descriptive, discrimination, consumer, sensory-related instrumental) used in the laboratory and in the field.

Two hours of lecture a week.

When Offered: Spring, Odd Years

Pre-Requisite: STAT 325 or Stat 702 or STAT 703 or equivalent.

Rationale: Pets now occupy 2/3 of our homes in the US whereas children under the age of 18 only 1/3. Unlike human subjects that can describe verbally their likes and dislikes, understanding preferences and aversions in pets and other captive animals must be assessed through a variety of indirect means. Similar circumstances are apparent in infant and infirm humans. A study of the various anatomical, neurological, behavioral, and methodological techniques utilized in assessing preferences, aversions, and other sensory cues in companion (pet) animals. Thus, there is a need to offer a deliberate and well planned course in sensory analysis of pet foods to serve as a basis for students pursuing undergraduate or graduate studies in sensory analysis, grain science, food science, neuro-psychology, nutrition, veterinary medicine, animal sciences.

Impact: None

Effective Date: Spring 2013

College of Arts and Sciences

Biochemistry

ADD: BIOCH 915 – Biomolecular Modeling. (2) I, even numbered years. Lectures on the basic principles and skills involved in computer modeling of biomolecules. Students will carry out projects that focus on practical aspects of utilizing publically available simulations and analysis tools to address questions in biochemical and biophysical research. Pr.: BIOCH 790.

RATIONALE: Molecular modeling is becoming an integral part of modern biochemical and biophysical research. However, students at Kansas State University have not had the opportunity to receive formal training in biomolecular modeling. The proposed graduate course is a step toward bridging this gap. The course will introduce the basic principles of molecular modeling and focus on practical
aspects of utilizing existing tools such as CHARMM, MMTSB & NAMD/VMD. The course will include group projects, where the students utilize modeling and simulation on assignments that resemble actual problems in biomolecule structure and function studies. The course will help to demystify molecular modeling, establish a basic understanding of its strengths and pitfalls, and encourage the students to take advantage of modeling throughout their professional careers.

IMPACT: None

EFFECTIVE DATE: Fall 2014

**English**

ADD: ENGL 725 – Studies in Children’s/Young Adult Literature. (3) I, II, S. Addresses topics not confined to a single period in a national literature. May emphasize cross-national subjects, literary criticism, the development of a theme or genre over time, new perspectives from social, intellectual, or cultural studies, or non-traditional texts and topics.

RATIONALE: Currently M.A. students in our children’s literature track have only one 700-level class regularly available to them (ENGL 703: Critical Approaches to Children’s Literature). This sometimes creates problems on the program of study since at least 18 hours must be at the 700 level or higher. ENGL 725 will take the place of ENGL 690 (Topics in Literature for the Young) in our course rotation, although 690 will remain in the catalog for several years while we assess the demand for it once we have added 725.

IMPACT: College of Education

EFFECTIVE DATE: Spring 2013

ADD: ENGL 753 – Theories of Composition and Rhetoric. (3) I, II, S. An introduction to major theories of composition and/or rhetoric.

RATIONALE: Currently we do not have a course at the 700 level that provides graduate students with a foundation in rhetorical and composition theory. Our other M.A. tracks have such a course and 753 would bring our track in composition and rhetoric into line with them.

IMPACT: Communication Studies

EFFECTIVE DATE: Spring 2013
Modern Languages

ADD: GRMN 720 – Open Topics Seminar in German Language and Linguistics. (3) I, II. Addresses topics in German Linguistics. It may emphasize a specific area of linguistics, a specific research approach, or the connection between language and society. Courses are repeatable with change of subject matter. Pr.: At least one GRMN 500-level course preferably GRMN 528.

RATIONALE: A growing number of major and graduate students in Modern Languages specialize in Linguistics or Applied Linguistics (esp. Foreign Language Pedagogy). Courses in this area have increased since new faculty with specialization in Linguistics were hired in Fall 2007. These courses were offered as special topics under existing course numbers (esp. GRMN 729 Open Topics Seminar in German Literature and Culture). However, since these language/linguistics courses are distinct in content, skills and research approach from literature/culture courses and are now offered on a regular basis (at least one 700-level course per year), there is a need to create separate course numbers for them. This would also allow students to enroll in special topics courses in literature and in linguistics at the same time (an option currently not open to students, since there is only one available special open topics course number: GRMN 729).

IMPACT: None

EFFECTIVE DATE: Spring 2013

Music, Theatre, and Dance

ADD: MUSIC 813 – Improvisation and Composition in Elementary Curriculum. (2) S, Every two years in Spring. Development of pedagogical practices in the areas of improvisation and composition as appropriate for the elementary music classroom.

RATIONALE: This course does not exist and is essential for graduate students studying to enhance understandings of elementary music.

IMPACT: None

EFFECTIVE DATE: Summer 2013
Sociology, Anthropology, and Social Work


RATIONALE: This course has been offered on an occasional basis as Topics in Cultural Anthropology course (ANTH 522) as a means of expanding our training in anthropological research methods. It also expands our offerings of cultural anthropology courses, while at the same time provides a link between subdisciplines of anthropology. This course is designed to teach methods of ethnohistorical research in anthropology, but can use different case studies. (The attached syllabus illustrates how the course has been taught using a specific regional case study, but the case studies may vary.) Three of the existing anthropology faculty hold expertise in ethnohistory.

IMPACT: Minor impact on other units. History has offered an occasional ethnohistory course as a topics course in the past, but a number of years ago and at the graduate level (HIST 984 Topics in American History: Ethnohistory). Our anthropology course is designed primarily of undergraduates (since there is no graduate program in anthropology at K-State). Graduate students in other disciplines may enroll for graduate credit and would be expected to complete an advanced independent research project in addition to the regular course requirements.

EFFECTIVE DATE: Spring 2014

Graduate Non-Expedited Curriculum Changes

College of Human Ecology

Department of Apparel, Textiles and Interior Design

Apparel and Textiles with specialization in Merchandising (M.S.)

<table>
<thead>
<tr>
<th>Core Courses (30 credit hours)</th>
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</thead>
<tbody>
<tr>
<td>• AT 720 - Professional Advancement in Merchandising Credits: (3)</td>
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</tr>
<tr>
<td>• AT 725 - Theory and Practice of Apparel/Textile Marketing and Distribution Credits: (3)</td>
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<tr>
<td>• AT 735 - Promotional Strategies in Merchandising Credits: (3)</td>
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</tr>
<tr>
<td>• AT 810 - International Merchandise Management Credits: (3)</td>
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<tr>
<td>• AT 815 - Financial Merchandising Implications Credits: (3)</td>
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</tbody>
</table>
### Electives (6 credit hours)
Select two electives (6 credit hours) from the list below. Choose a focus in Education, Business, or Research. Other electives must be approved by a student’s supervisory committee.

#### Education Focus
- EDCEP 829 - Learning Principles Credits: (3)
- EDCEP 851 - Multicultural Aspects of Academic Advising Credits: (3)
- EDCEP 863 - Trends in Career Development Credits: (3)

#### Business Focus
- MANGT 520 - Organizational Behavior Credits: (3)
- MANGT 541 - Management of Quality Credits: (3)
- MANGT 810 - Operations Management and Analysis Credits: (3)
- MANGT 820 - Behavioral Management Theory Credits: (3)
- MKTG 810 - Marketing Concepts and Research Credits: (3)
- FINAN 815 - Managerial Finance I Credits: (3)

#### Research Focus
- EDCEP 816 - Research Methods in Education Credits: (3)
- STAT 703 - Statistical Methods for Natural Scientists Credits: (3)

#### Other Courses
Students may take up to three credit hours of the following courses upon permission to enroll in by the major professor and completion of required paperwork outlining objectives.
- AT 870 - Problems in Apparel and Textiles Credits: (Var.)
- AT 875 - Practicum in Apparel and Textiles Credits: (Var.)

### Electives (6 credit hours)
Select two electives (6 credit hours) from the list below. Choose a focus in Education, Business, or Research. Other electives must be approved by a student’s supervisory committee.

#### Education Focus
- EDCEP 829 - Learning Principles Credits: (3)
- EDCEP 851 - Multicultural Aspects of Academic Advising Credits: (3)
- EDCEP 863 - Trends in Career Development Credits: (3)

#### Business Focus
- MANGT 520 - Organizational Behavior Credits: (3)
- MANGT 541 - Management of Quality Credits: (3)
- MANGT 810 - Operations Management and Analysis Credits: (3)
- MANGT 820 - Behavioral Management Theory Credits: (3)
- MKTG 810 - Marketing Concepts and Research Credits: (3)
- MKTG 844 – Advanced International Marketing Credits: (3)
- FINAN 815 - Managerial Finance I Credits: (3)

#### Research Focus
- EDCEP 816 - Research Methods in Education Credits: (3)
- STAT 703 - Statistical Methods for Natural Scientists Credits: (3)

#### Other Courses
Students may take up to three credit hours of the following courses upon permission to enroll in by the major professor and completion of required paperwork outlining objectives.
- AT 870 - Problems in Apparel and Textiles Credits: (Var.)
- AT 875 - Practicum in Apparel and Textiles Credits: (Var.)
**Rationale:** The removal of MANGT520 Organizational Behavior from the MS Merchandising Elective options is being sought as the content in MANGT520 contained similar content to MANGT820 as brought to our attention when an MS Merchandising student was enrolled simultaneously in both courses from the same instructor. Therefore, we would like to add MKTG844 Advanced International Marketing to the Elective options. The content of MKTG844 is appropriate for the business focus of the MS Merchandising electives.

**Impact:** Dr. Sheu and Dr. Kovar have approved removal of MANGT520 from the list of MS Merchandising Electives. Removal of MANGT520 would result in 1-2 fewer students enrolled. Dr. Gwinner and Dr. Kovar have approved adding MKTG844 to the list of MS Merchandising Electives. Adding MKTG844 may result in an increase of 1-2 students enrolling in the course.

**Effective Date:** Spring 2013

### College of Arts and Sciences

### English

Graduate Certificate in Technical Writing and Professional Communication

<table>
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<th>FROM:</th>
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| **Writing**<br>
Students choose one from the following:<br>
ENGL 759 – Studies in Technical Communication<br>ENGL 510 – Introduction to Professional Writing<br>AGCOM 710 – Science Communication<br>**Rhetorical or Communication Theory**<br>Students choose from the following:<br>COMM 726 – Seminar in Persuasion<br>COMM 733 – Rhetorical Criticism<br>ENGL 755 – Studies in Composition and Rhetoric<br>MC 765 – Communication Theory<br>**Related Electives**<br>Students choose two from the following:<br>AGCOM 712 – Environmental Communication<br>ART 575 – Graphic Design and Illustration<br>ART 820 – Graduate Graphic Design/Visual Comm<br>COMM 526 – Persuasion<br>COMM 730 – Classical Rhetorical Theory<br>COMM 734 – Rhetoric of Social Movements<br>EDACE 786 – Topics/Grant Writing<br>ENGL 665 – Creative Non-Fiction<br>ENGL 685 – Topics in Rhetoric and Composition<br>ENGL 765 – Advanced Creative Non-Fiction<br>ENGL 797 – Internship in Professional Writing<br>ENGL 799 – Problems in English<br>**Writing**<br>Students choose one from the following:<br>ENGL 759 – Studies in Technical Communication<br>ENGL 510 – Introduction to Professional Writing<br>AGCOM 810 – Scientific Communication<br>**Related Electives**<br>Students choose three from the following:<br>(Students can petition to use additional courses as electives by discussing with the Certificate Director, preferably before they take the course, and by demonstrating that course meets Certificate SLOs)<br>AGCOM 590 – New Media Technology<br>AGCOM 610 – Crisis Communication<br>AGCOM 712/MC 712 – Environmental Communication<br>ART 575 – Graphic Design and Illustration<br>ART 820 – Graduate Graphic Design/Visual Communication<br>ART 601 – Graphic Design<br>History/Theory/Criticism
MANGT 520 – Organizational Behavior
MC 575 – Multimedia Techniques

COMM 526 – Persuasion
COMM 726 – Seminar in Persuasion
COMM 730 – Classical Rhetorical Theory
COMM 733 – Rhetorical Criticism
COMM 734 – Rhetoric of Social Movements
EDACE 786 – Topics/Grant Writing
ENGL 665 – Creative Non-Fiction
ENGL 685 – Topics in Rhetoric and Composition
ENGL 753 – Rhetorical/Composition
ENGL 755 – Studies in Composition and Rhetoric
ENGL 756 – Business Communication
ENGL 758 – Scientific Writing
ENGL 765 – Advanced Creative Non-Fiction
ENGL 797 – Internship in Professional Writing
MANGT 520 – Organizational Behavior
MC 712/AGCOM 712 – Environmental Communication
MC 750 – Strategic Health Communications
MC 760 – Communication and Risk
MC 765 – Communication Theory

RATIONALE: Many of the proposed changes merely bring the curriculum for the Graduate Certificate in Technical Writing and Professional Communication in line with the current course offerings in participating departments. We have removed the category of “Rhetorical or Communication Theory,” from which students previously had to choose one course. Courses previously listed under “Rhetorical or Communication Theory” are moved into “Related Electives”. Now students choose three (rather that two) electives form the “Related Electives” list. This streamlines the requirements by removing a category. Since many of the electives cover rhetorical and communication theories, this reconfiguration of the curriculum more accurately reflects the actual mature of the courses available. The courses added to the curriculum make the program more interdisciplinary and capable of being fine-tuned to the individual student’s needs, as well as taking better advantage of the resources available across the university.

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

EFFECTIVE DATE: Spring 2013