

Attachment 1a

Academic Affairs

Consent Agenda Supplemental Information - Curriculum Proposals

Faculty Senate Review – June 12, 2018 Meeting

In order by College, not by the Curriculum Agenda

<https://kstate.curriculog.com/agenda:404/form>

Engineering – Pages 2-5

Human Ecology – Pages 6-27

Technology & Aviation – Pages 28-34

Engineering

Description: A 5-year concurrent degree program for a BS in Computer Science and an MBA.

Rationale: Computer Science graduates often will pursue MBA degrees at some point in their careers. This concurrent degree program will help them to do this before they leave KSU. It uses 9 hours of graduate credit toward the BS degree, and utilizes the Data Analytics concentration of the MBA degree to assemble a coherent set of courses from the two degree programs.

Impact statement: The Department of Computer Science and College of Business Administration have worked together on this proposal. There is no impact outside the Colleges of Engineering and Business Administration.

Concurrent B.S.-Computer Science/M.B.A.

	Credits		Credits
Freshman year			
Fall semester (15-16 credit hours)		Spring semester (15 credit hours)	
Humanities/social science elective (first of four)	3	Math/science elective with laboratory (first of five)	4
CIS 015 Undergraduate Seminar	0	CIS 200 Programming Fundamentals	4
CIS 115 Introduction to Computing Science	3	ECE 241 Introduction to Computer Engineering	3
COMM 105 Public Speaking IA or COMM 106 Public Speaking I	2-3	MATH 221 Analytic Geometry and Calculus II	4
ENGL 100 Expository Writing I	3		
MATH 200 Analytic Geometry and Calculus I	4		
Sophomore year			
Fall semester (15 credit hours)		Spring semester (15 credit hours)	
Humanities/social science electives (second of four)	3	Math/science elective (second of five)	3
CIS 300 Data and Program Structures	3	Communication elective	3
CIS 301 Logical Foundations of Programming	3	ECON 120 Principles of Microeconomics	3
ECON 110 Principles of Macroeconomics	3	CIS 501 Software Architecture and Design	3
ENGL 200 Expository Writing II	3	MATH 510 Discrete Mathematics	3
Junior year			
Fall semester (15 credit hours)		Spring semester (15 credit hours)	
Humanities/social science elective (third of four)	3	Technical elective (first of five)	3
Unrestricted electives	3	CIS 450 Computer Architecture and Operations	3

CIS 308 C/C++ Language Laboratory	1	CIS 575 Introduction to Algorithm Analysis	3
CIS 415 Ethics and Computing Technology	1	ENGL 415 Written Communication for Engineers or ENGL 516 Written Communication for the Sciences	3
CIS 560 Database System Concepts	3	STAT 510 Introductory Probability and Statistics I	3
Math/science elective with laboratory (third of five)	4		

Senior year

Fall semester (14-15 credit hours)

Technical electives (second of five)	3
MANGT 820 Managing Organizational Behavior	3
ACCTG 810 Foundations of Accounting	3
Math/science elective (fourth of five)	3
Unrestricted elective	2-3

Spring semester (12 credit hours)

MANGT 810 Operations and Supply Chain Management	3
MKTG 810 Marketing Concepts and Research	3
FINAN 815 Foundations of Finance	3
ECON 815 Economic Analysis for Business	3

Fifth year

Fall semester (15 credit hours)

CIS 505 – Introduction to Programming Languages	3
Humanities/social science elective (fourth of four)	3
MANGT 880 Business Strategy	3
Technical electives (third and fourth of five)	6

Spring semester (15 credit hours)

Technical elective (fifth of five)	3
MANGT 860 Managing the Triple Bottom Line Business	3
GENBA 890 Business Capstone or GENBA 897 MBA Internship	3
Unrestricted elective	3
Math/science elective (fifth of five)	3

Notes:

A grade of C or better is required for all graded courses listed by specific course number above.

All students new to the CS department must complete CIS 015.

Math/science electives must be taken for undergraduate credit and have departmental approval.

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

Communications Elective **Credits:** (3) The Communications Elective must be chosen from:

- COMM 322 – Interpersonal Communication **Credits:** 3

- COMM 326 – Small Group Discussion Methods **Credits: 3**
- MANGT 420 – Principles of Management **Credits: 3**
- THTRE 261 – Fundamentals of Acting **Credits: 3**
- THTRE 265 – Fundamentals of Improvisation I, II **Credits: 3**

Technical electives must be comprised of the following:

- C or better in either CIS 520-Operating Systems I or CIS 625-Concurrent Software Systems.
- C or better in either CIS 598-Computer Science Project or CIS 642-Software Engineering Project I. Students taking CIS 642 must take it for undergraduate credit and take CIS 643-Software Engineering Project II the following semester as an unrestricted elective.
- Three courses taken for graduate credit from the following list:
 - CIS 732 Machine Learning and Pattern Recognition
 - MIS 670 Social Media Analytics and Web Mining
 - At most one of:
 - MIS 665 Business Analytics and Data Mining
 - MKTG 880 Applied Marketing Analytics
 - MKTG 881 Advanced Marketing Analytics
 - Other Data Analytics courses, including special topics courses, approved by both the Department of Computer Science and the College of Business Administration.

NOTE: K-State 8 General Education Requirements

For additional information about the University General Education program, check the requirements specified by the College of Engineering.

Total hours required for graduation (147 credit hours)

CS Requirements		MBA Requirements		Combined Degree Requirements	
Required CIS courses	30			Required CIS courses	30
ECE 241 Intro. Comp. Engg.	3			ECE 241 Intro. Comp. Engg.	3
CIS 520 or 625 (tech elective)	3			CIS 520 or 625 (tech elective)	3
CIS 598 or 642 (tech elective)	3			CIS 598 or 642 (tech elective)	3
Other tech electives	6	Concentration electives	9	Other tech electives	9
Unrestricted electives	11-12			Unrestricted electives	8-9
COMM 105 or 106 Pub. Spkng.	2-3			COMM 105 or 106 Pub. Spkng.	2-3
Communication elective	3			Communication elective	3
ENGL courses	9			ENGL courses	9
ECON 110 Princ. Macroeconomics	3	6 hours Economics	prereq	ECON 110 Princ. Macroeconomics	3
Humanities/ss electives	15			ECON 120 Princ. Microeconomics	3
				Humanities/ss electives	12
MATH 220 Calc I	4	MATH 205 General Calc.	prereq	MATH 220 Calc I	4
MATH 221 Calc II	4			MATH 221 Calc II	4
MATH 510 Discrete Math	3			MATH 510 Discrete Math	3
Math/science electives	17			Math/science electives	17
STAT 510 Intro. Prob/Stat I	3	STAT 703 Intro Stat Meth. Sci.	prereq	STAT 510 Intro. Prob/Stat I	3
		Other MBA Requirements	27	Other MBA Requirements	27
Total	120	Total	36	Total	147

Human Ecology

Rationale: Due to BIOL 340 being removed and replaced with two courses, BIOL 341 & 342, we had to change the required or courses listed for the AT Curriculum. Corrected some addition mistakes in Professional hours and unrestricted electives to change in the catalog.

Note: This proposal reflects the previous Athletic Training (B.S.) Curriculum change proposal submitted and approved by Faculty Senate on February 13, 2018 and effective Fall 2018. The current undergraduate catalog does not reflect the changes approved to be effective Fall 2018.

Impact (i.e. if this impacts another unit) – Statement should include the date when the head of a unit was contacted, and the response or lack of: The impact on BIOL should not change as we are implementing changes they have already made by making the one class into 2 courses. The College of Human Ecology and the Dept. of Biology discussed the changes prior to the Faculty Senate AAC approval. Adequate changes were made by Biology that would allow these courses still be suitable for this degree.

Effective term for requested action: Term Spring Year 2019

FROM:

TO:

Athletic Training (B.S.)

Kansas State University's Athletic Training undergraduate program is a pre-professional healthcare degree program that foundationally prepares students for additional training and application in advanced healthcare degrees. The Athletic Training program is housed in the Department of Food, Nutrition, Dietetics, and Health and functions with the support from the K-State Division of Intercollegiate Athletics. This program will meet the admission requirements for many Master's Professional-level Athletic Training programs, specifically the program at Kansas State University. The athletic training pre-professional program prepares students for a career as an allied-health professional. Students in this program study the foundational concepts and learn to critically apply the knowledge needed to properly manage the health care needs of physically active individuals at all levels and ages. Pre-professional students must undergo a period of guided observation in athletic training clinical sites and a variety of healthcare

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settings that are both on and off campus. These experiences allow students to gather firsthand knowledge on employment settings and make informed decisions about their future career options. Examples of settings that professionals may be working in include: secondary schools, colleges and universities, professional sports, performing arts, military, industrial, sports medicine clinics (both assisting physicians and in rehabilitation) and other healthcare settings.

K-State has proactively developed this degree program to respond to the National Athletic Trainers Association's - Athletic Training Strategic Alliances' decision to require a Master's degree to become eligible for certification as an Athletic Trainer. For more information regarding the MS in AT Degree at Kansas State University, please see our website for the most current information.

Bachelor's degree requirements

General requirements (53-54 credit hours)

Communications (8-9 credit hours)

- [ENGL 100 - Expository Writing I](#)
Credits: 3
- [ENGL 200 - Expository Writing II](#)
Credits: 3

One of the following two courses

- [COMM 105 - Public Speaking IA](#)
Credits: 2
- or
- [COMM 106 - Public Speaking I](#)
Credits: 3

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Credits: 2
- or
- [COMM 106 - Public Speaking I](#)
Credits: 3

<p>Social Science (9 credit hours)</p> <ul style="list-style-type: none"> • ECON 110 - Principles of Macroeconomics Credits: 3 • PSYCH 110 - General Psychology Credits: 3 • SOCIO 211 - Introduction to Sociology Credits: 3 <p>Humanities (6 credit hours)</p> <ul style="list-style-type: none"> • (Only a course of 3 credits or more will apply.) <p>Natural and Physical Sciences (20 credit hours)</p> <ul style="list-style-type: none"> • BIOL 198 - Principles of Biology Credits: 4 • BIOL 340 - Structure and Function of the Human Body Credits: 8 <p>OR</p> <ul style="list-style-type: none"> • KIN 360 - Anatomy and Physiology Credits: 8 • CHM 210 - Chemistry I Credits: 4 • or • CHM 110 - General Chemistry Credits: 3 • and • CHM 111 - General Chemistry Laboratory Credits: 1 • PHYS 113 - General Physics I Credits: 4 <p>Quantitative Studies (9 credit hours)</p> <ul style="list-style-type: none"> • MATH 100 - College Algebra Credits: 3 • MATH 150 - Plane Trigonometry Credits: 3 	<p>Social Science (9 credit hours)</p> <ul style="list-style-type: none"> • ECON 110 - Principles of Macroeconomics Credits: 3 • PSYCH 110 - General Psychology Credits: 3 • SOCIO 211 - Introduction to Sociology Credits: 3 <p>Humanities (6 credit hours)</p> <ul style="list-style-type: none"> • (Only a course of 3 credits or more will apply.) <p>Natural and Physical Sciences (20 credit hours)</p> <ul style="list-style-type: none"> • BIOL 198 - Principles of Biology Credits: 4 • <u>BIOL 341 - Human Body I Credits: 4</u> <p><u>AND</u></p> <ul style="list-style-type: none"> • <u>BIOL 342 - Human Body II Credits: 4</u> <p>OR</p> <ul style="list-style-type: none"> • KIN 360 - Anatomy and Physiology Credits: 8 • CHM 210 - Chemistry I Credits: 4 • or • CHM 110 - General Chemistry Credits: 3 • and • CHM 111 - General Chemistry Laboratory Credits: 1 • PHYS 113 - General Physics I Credits: 4 <p>Quantitative Studies (9 credit hours)</p> <ul style="list-style-type: none"> • MATH 100 - College Algebra Credits: 3 • MATH 150 - Plane Trigonometry Credits: 3
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<ul style="list-style-type: none"> • STAT 325 - Introduction to Statistics Credits: 3 <p>Integrative Human Ecology Course (1 credit hour)</p> <ul style="list-style-type: none"> • GNHE 210 - Foundations of Human Ecology Credits: 1 <p>Professional studies (38-41 credit hours)</p> <p>Health courses (26 credit hours)</p> <ul style="list-style-type: none"> • FNDH 115 - Introduction to Health and Nutrition Professions Credits: 2 • FNDH 120 - Introduction to Athletic Training Credits: 2 • FNDH 121 - Introduction to Athletic Training Lab Credits: 1 • FNDH 132 - Basic Nutrition Credits: 3 • FNDH 320 - Care and Prevention of Athletic Injuries Credits: 3 • FNDH 450 - Nutritional Assessment Credits: 2 • FNDH 551 - Evaluation of Athletic Injuries of the Extremities Credits: 3 • FNDH 553 - Pharmacology in Athletic Training Credits: 2 • FNDH 554 - General Medical Conditions in the Athlete Credits: 2 • FNDH 575 - Research Methods and Scientific Communication in Health Sciences Credits: 3 • FNDH 635 - Nutrition and Exercise Credits: 3 <p>Kinesiology courses (12 credit hours)</p> <ul style="list-style-type: none"> • KIN 220 - Biobehavioral Bases of Physical Activity Credits: 4 • KIN 330 - Biomechanics Credits: 3 	<ul style="list-style-type: none"> • STAT 325 - Introduction to Statistics Credits: 3 <p>Integrative Human Ecology Course (1 credit hour)</p> <ul style="list-style-type: none"> • GNHE 210 - Foundations of Human Ecology Credits: 1 <p>Professional studies (41 credit hours)</p> <p>Health courses (26 credit hours)</p> <ul style="list-style-type: none"> • FNDH 115 - Introduction to Health and Nutrition Professions Credits: 2 • FNDH 120 - Introduction to Athletic Training Credits: 2 • FNDH 121 - Introduction to Athletic Training Lab Credits: 1 • FNDH 132 - Basic Nutrition Credits: 3 • FNDH 320 - Care and Prevention of Athletic Injuries Credits: 3 • FNDH 450 - Nutritional Assessment Credits: 2 • FNDH 551 - Evaluation of Athletic Injuries of the Extremities Credits: 3 • FNDH 553 - Pharmacology in Athletic Training Credits: 2 • FNDH 554 - General Medical Conditions in the Athlete Credits: 2 • FNDH 575 - Research Methods and Scientific Communication in Health Sciences Credits: 3 • FNDH 635 - Nutrition and Exercise Credits: 3 <p>Kinesiology courses (12 credit hours)</p> <ul style="list-style-type: none"> • KIN 220 - Biobehavioral Bases of Physical Activity Credits: 4
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- KIN 335 - Physiology of Exercise Credits: 4
- KIN 336 - Physiology of Exercise Lab Credits: 1

Supportive courses (3 credit hours)

- GERON 315 - Introduction to Gerontology Credits: 3

Unrestricted electives (25-~~29~~ credit hours)

(Only 100-799 level undergraduate courses may be applied)

Total credit hours required for graduation (120)

- KIN 330 - Biomechanics Credits: 3
- KIN 335 - Physiology of Exercise Credits: 4
- KIN 336 - Physiology of Exercise Lab Credits: 1

Supportive courses (3 credit hours)

- GERON 315 - Introduction to Gerontology Credits: 3

Unrestricted electives (25-26 credit hours)

(Only 100-799 level undergraduate courses may be applied)

Total credit hours required for graduation (120)

Health Coach Certificate - NEW

Department of Food, Nutrition, Dietetics and Health

- **Purpose** (clear and appropriate educational objective):

The purpose for the Health Coach certificate is to provide specific training to individuals seeking work as a Health Coach. A Health Coach is someone who educates and mentors individuals, or small groups, to improve their health behaviors.

This certificate program will provide a vocation directive for our health care-focused Nutrition and Health graduates. The courses are designed to complement our Nutrition and Health degree by requiring specific training in: counseling strategies (as the coach will perform one-one and small group counseling); lifestyle behaviors highly related to health risks (nutrition and physical activity); and specific training in health-focused psychology.

The core and elective courses are a great fit for Nutrition and Health, and many other health and pre-health, students. This flexible and health-focused curriculum creates a very feasible and professionally aligned program that allows students the opportunity to earn this certificate while completing their degree.

- **Evidence of demonstrated need or demand for proposed certificate:** Based on data from the Bureau of Labor Statistics, there is expected to be a 12% increase in employment of Health Coaches from 2014-2024. There is an expectation that the number of people with access to health care will increase according to the Affordable Care Act and health insurance reform.

Health coaches work in the following settings: medical offices and clinics; large and small businesses; insurance companies, community centers, health clubs and fitness centers, and holistic and other health promotion centers.

- **Course Requirements** (15-16 cr hr)

Didactic:

FNDH 352 (3) Personal Wellness

FNDH 450 (2) Nutrition Assessment

FNDH 515 (3) Counseling Strategies (section for non-DT students)

PSYCH 110 (3) Intro to Psychology

Practicum/Internship:

FNDH 650 (1) – Practicum/Internship

Electives, select one of the following:

FNDH 320: Care and Prevention of Athletic Injuries (3)

FNDH 413: Science of Food (4)

EDSEC 250: Scientific Principles of Coaching (3)

GERON 315: Introduction to Gerontology (3)

PSYCH 505 Abnormal Psychology (3)

PSYCH 518 Introduction to Health Psychology (3)

PSYCH 520 Life Span Personality Development (3)

- **Desired outcomes**

The primary desired outcomes are: increased employment opportunities for those seeking to work immediately upon completing their bachelor's degree; and, increased enrollment into Kansa State University for those interested in this profession. Many students will seek acceptance into pre-Physician Assistance programs, pre-Physical Therapy, pre-Nursing, pre-Medicine, etc. Some students want to work upon completion of their B.S. degree, with or without acceptance into an accredited graduate health care program.

This certificate will better prepare students for health care by broadening their knowledge and skills beyond those required by the degree program alone, and there is not a current program that requires this knowledge or skills.

- **Assessment procedures**

We will work with the instructors of the courses to to provide assessment data. Additionally, we will report pass rates for national certification exams for this profession. As with our accredited Athletic Training program, we will set a first-time pass rate of at least 70% as our expectation.

Regarding knowledge, we will incorporate the evaluations made in our courses and work with faculty in other departments to incorporate the grades for final exams and projects to verify knowledge in these areas. For privacy reasons, as director, our director will submit names of those in the certificate program to the faculty for their grades. Thus, we will only include the academic performance of those in our program.

One unique aspect will aim to include is determining which assessment features best determine success in passing national certification exams. After three years of data, we will begin analyzing the data to determine the assessment markers that better predict exam scores and pass rates. This will enable us to make decisions about our certificate program and to provide data back to students about which aspects might be better to focus their attention when preparing for national certification exams. This improved exam performance, will, also, help our certificate program by making it's success more appealing to current and potential students.

- **Estimated budget and staff required:**

Since the required courses are already available, there will not be a need for new courses. We will use our Global Campus revenue form this program to support the program, including instruction, as needed. Thus, if an adjunct faculty member is required to provide support, we will be able to fund this need, as we currently do, with funds generated from our Global Campus courses. We expect 20% of our 251 Nutrition and Health students to participate, and potentially 50-100 students from other health-focused units, including: Biology, Family Studies, Kinesiology, and Psychology to name a few. If this is the case, we expect to allocate \$25,000 of the revenue back into instruction each each year — revenue will be generated from the Global Campus fees via the sections of our courses.

- Evidence of approval of their certificate program through internal academic channels.

This was supported by faculty vote of **23-0-0** (in favor – oppose – abstain)

Rationale: This certificate program will provide a vocation directive for our health care-focused Nutrition and Health graduates. The courses are designed to complement our Nutrition and Health degree by requiring specific training in: counseling strategies (as the coach will perform one-on-one and small-group counseling); lifestyle behaviors highly related to health risks (nutrition and physical activity); and specific training in health-focused psychology.

The arrangement of courses is a great fit for the Nutrition and Health degree, given the courses that are already required, and the large number of elective hours that were recently secured for certificates and minors. This flexible and health-focused curriculum creates a very feasible and professionally aligned program that will allow students the opportunity to earn this certificate while completing their degree. It will not require additional hours, thereby allowing students to graduate in their expected time frame.

Impact Statement:

We have sought impact statements from the Departments of Psychological Sciences and Secondary Education.

I can support this, Mark. It sounds like you want to offer this through Global Campus. Although we offer 110 and 520 as distance and/or evening college, 505 and 518 are usually only offered during the day (although Health will be available as an EC class this spring).

Cheers,
Mike

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Dr. Michael Young
Head and Professor, Psychological Sciences
Kansas State University
<http://www.k-state.edu/psych/research/youngmike.html>

This is interesting.

As you probably know, we have a “coaching endorsement.” The word endorsement is historic and unfortunate. It also implies some sort of licensure that doesn’t really exist.

This is just to say we are in the process of preparing a proposal to change our existing endorsement into a coaching certificate. This involves a couple of minor changes in our courses, mostly eliminating sport specific coaching classes by combining them into one course that will allow for individualization with regard to the sport(s) individual students wish to study. We have

needed to do this last revision for some time, as the enrollment in several of the existing courses is too small to be sustainable.

I don't believe any of this impacts your Health Coach Certificate proposal, and I'm happy to support inclusion of EDSEC 250 in your program. I am glad to know about your proposal, as we might want to think seriously about being more descriptive in our certificate. I don't want confusion between the two "coaching" certificates.

Thanks again for informing me of your plans. You have my support for this proposal.

tg

F. Todd Goodson
Chair, Department of Curriculum and Instruction
Kansas State University

Assessment of Student Learning Plan
Health Coaching

Complete the following for each student learning outcomes (copy as many times as needed)

Student Learning Outcome:

Develop competent knowledge and skills for a health coaching professional

Assessment Measure(s): *(must include at least one direct measure)*
Capstone assignment from FNDH 650

Assessment timeline: *(when, where, and how often the outcome will be measured)*

The assignment will be submitted after their capstone practicum experience at the end of their certificate program (once per student).

Complete the following for the overall assessment plan

Plan for annual faculty review of outcome data:

Last, or May, faculty meeting of Spring semester since assessments are due in October. This will allow time to gather information and implement changes over the summer to begin the next academic year.

Attach a Curricular/Assessment Matrix

Intended Student Learning Outcomes			
Courses	Counseling skills	Health Behaviors	Awareness of strategies to improve health
FNDH 352		I	I
FNDH 450	I		R
FNDH 515	R		
PSYCH 110		I	
FNDH 650	M	R	M

Human Nutrition (B.S.)-Nutrition and Health - Change

Rationale: Due to BIOL 340 being removed and replaced with two courses, BIOL 341 & 342, we had to change prereqs for this degree. -- Please note this proposal is submitted using the Expedited curriculum change approved March 9, 2018. Changes may not appear in the undergraduate catalog. mw 3/23/18

Impact (i.e. if this impacts another unit) – Statement should include the date when the head of a unit was contacted, and the response or lack of: The impact on BIOL should not change as we are implementing changes they have already made by making the one class into 2 courses. The College of Human Ecology and the Dept. of Biology discussed the changes prior to the Faculty Senate AAC approval. Adequate changes were made by Biology that would allow these courses still be suitable for this degree.

<p>Human Nutrition (B.S.)-Nutrition and Health</p> <p>The nutrition and health curriculum includes emphasis in health promotion, chronic disease prevention, human nutrition, and preparation for careers in healthcare. Graduates from this program may develop community programs to promote nutrition and good health; educate people about the relationship between diet and health; conduct research on the psychological, cultural, social, economic, and environmental issues related to nutrition and health; or work with special groups who are at risk for nutrition-related health problems, such as pregnant women, infants, and the elderly. Opportunities are available with local health departments, community wellness programs, the food industry, and agencies involved in international development. This program is, also, designed to develop our graduates to be competitive applicants for most accredited healthcare programs including (but not limited to):</p> <ul style="list-style-type: none"> • Physician Assistant • Athletic Training/Physical Therapy, • Medicine • Nursing, • Occupational Therapy, <p>BACHELOR’S DEGREE REQUIREMENTS</p> <p>General requirements (50-52 credit hours) (Grades of C or higher required.)</p> <p>Communications (8-9 credit hours)</p> <ul style="list-style-type: none"> • COMM 105 - Public Speaking IA Credits: 2 or • COMM 106 - Public Speaking I Credits: 3 • ENGL 100 - Expository Writing I Credits: 3 	<p>Human Nutrition (B.S.)-Nutrition and Health</p> <p>The nutrition and health curriculum includes emphasis in health promotion, chronic disease prevention, human nutrition, and preparation for careers in healthcare. Graduates from this program may develop community programs to promote nutrition and good health; educate people about the relationship between diet and health; conduct research on the psychological, cultural, social, economic, and environmental issues related to nutrition and health; or work with special groups who are at risk for nutrition-related health problems, such as pregnant women, infants, and the elderly. Opportunities are available with local health departments, community wellness programs, the food industry, and agencies involved in international development. This program is, also, designed to develop our graduates to be competitive applicants for most accredited healthcare programs including (but not limited to):</p> <ul style="list-style-type: none"> • Physician Assistant • Athletic Training/Physical Therapy, • Medicine • Nursing, • Occupational Therapy, <p>BACHELOR’S DEGREE REQUIREMENTS</p> <p>General requirements (50-52 credit hours) (Grades of C or higher required.)</p> <p>Communications (8-9 credit hours)</p> <ul style="list-style-type: none"> • COMM 105 - Public Speaking IA Credits: 2 or • COMM 106 - Public Speaking I Credits: 3 • ENGL 100 - Expository Writing I Credits: 3
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<ul style="list-style-type: none"> ENGL 200 - Expository Writing II Credits: 3 <p>Social Science (6 credit hours)</p> <ul style="list-style-type: none"> ECON 110 - Principles of Macroeconomics Credits: 3 PSYCH 110 - General Psychology Credits: 3 <p style="text-align: center;">or</p> <ul style="list-style-type: none"> SOCIO 211 - Introduction to Sociology Credits: 3 <p>Humanities elective (6 credit hours) (Only a course of 3 credits or more will apply.)</p> <p>Natural and Physical Sciences (23 credit hours) *(Include at least one course with a laboratory.)</p> <p>Biological Science (12 credit hours)</p> <ul style="list-style-type: none"> BIOL 198 - Principles of Biology Credits: 4 BIOL 340 - Structure and Function of the Human Body Credits: 8 <p style="text-align: center;">or</p> <ul style="list-style-type: none"> KIN 360 - Anatomy and Physiology Credits: 8 <p>Physical Sciences (11 credit hours)</p> <ul style="list-style-type: none"> CHM 210 - Chemistry I Credits: 4 CHM 230 - Chemistry II Credits: 4 CHM 350 - General Organic Chemistry Credits: 3 <p>Quantitative Studies (6-7 credit hours)</p> <ul style="list-style-type: none"> MATH 100 - College Algebra Credits: 3 <p style="text-align: center;">or</p> <ul style="list-style-type: none"> MATH 220 - Analytic Geometry and Calculus I Credits: 4 STAT 325 - Introduction to Statistics Credits: 3 <p>Integrative Human Ecology course (1 credit hour)</p> <ul style="list-style-type: none"> GNHE 210 - Foundations of Human Ecology Credits: 1 <p>Professional studies (30-32 credit hours) (Grades of C or higher required.)</p> <ul style="list-style-type: none"> FNDH 115 - Introduction to Nutrition and 	<ul style="list-style-type: none"> ENGL 200 - Expository Writing II Credits: 3 <p>Social Science (6 credit hours)</p> <ul style="list-style-type: none"> ECON 110 - Principles of Macroeconomics Credits: 3 PSYCH 110 - General Psychology Credits: 3 <p style="text-align: center;">or</p> <ul style="list-style-type: none"> SOCIO 211 - Introduction to Sociology Credits: 3 <p>Humanities elective (6 credit hours) (Only a course of 3 credits or more will apply.)</p> <p>Natural and Physical Sciences (23 credit hours) *(Include at least one course with a laboratory.)</p> <p>Biological Science (12 credit hours)</p> <ul style="list-style-type: none"> BIOL 198 - Principles of Biology Credits: 4 BIOL 341 - Human Body I Credits: 4 <p style="text-align: center;">AND</p> <ul style="list-style-type: none"> BIOL 342 - Human Body II Credits: 4 <p style="text-align: center;">or</p> <ul style="list-style-type: none"> KIN 360 - Anatomy and Physiology Credits: 8 <p>Physical Sciences (11 credit hours)</p> <ul style="list-style-type: none"> CHM 210 - Chemistry I Credits: 4 CHM 230 - Chemistry II Credits: 4 CHM 350 - General Organic Chemistry Credits: 3 <p>Quantitative Studies (6-7 credit hours)</p> <ul style="list-style-type: none"> MATH 100 - College Algebra Credits: 3 <p style="text-align: center;">or</p> <ul style="list-style-type: none"> MATH 220 - Analytic Geometry and Calculus I Credits: 4 STAT 325 - Introduction to Statistics Credits: 3 <p>Integrative Human Ecology course (1 credit hour)</p> <ul style="list-style-type: none"> GNHE 210 - Foundations of Human Ecology Credits: 1 <p>Professional studies (30-32 credit hours) (Grades of C or higher required.)</p> <ul style="list-style-type: none"> FNDH 115 - Introduction to Nutrition and
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<p>Health Professions Credits: 2</p> <ul style="list-style-type: none"> • FNDH 132 - Basic Nutrition Credits: 3 • FNDH 400 - Human Nutrition Credits: 3 • FNDH 413 - Science of Food Credits: 4 • FNDH 450 - Nutritional Assessment Credits: 2 • FNDH 510 - Life Span Nutrition Credits: 2 • FNDH 600 - Public Health Nutrition Credits: 3 • FNDH 575 - Research Methods and Health Sciences Credits: 3 <p>Three courses from the following (8-9 credit hours):</p> <ul style="list-style-type: none"> • FNDH 320 – Care and Prevention of Injuries Credits: 3 • FNDH 340 –Food and Health: Safety, Allergies, and Intolerances Credits: 3 • FNDH 352- Personal Wellness Credits: 3 <ul style="list-style-type: none"> • FNDH 553 – Pharmacology in Athletic Training Credits: 2 • FNDH 554 – General Medical Conditions in the Athlete Credits: 2 • FNDH 620 – Nutrient Metabolism Credits: 3 • FNDH 631 – Clinical Nutrition I Credits: 3 • FNDH 632- Clinical Nutrition II Credits: 3 • FNDH 635-Nutrition and Exercise Credits: 3 <p>Unrestricted electives (36-40 credit hours)</p> <p>Total credit hours required for graduation (120)</p>	<p>Health Professions Credits: 2</p> <ul style="list-style-type: none"> • FNDH 132 - Basic Nutrition Credits: 3 • FNDH 400 - Human Nutrition Credits: 3 • FNDH 413 - Science of Food Credits: 4 • FNDH 450 - Nutritional Assessment Credits: 2 • FNDH 510 - Life Span Nutrition Credits: 2 • FNDH 600 - Public Health Nutrition Credits: 3 • FNDH 575 - Research Methods and Health Sciences Credits: 3 <p>Three courses from the following (8-9 credit hours):</p> <ul style="list-style-type: none"> • FNDH 320 – Care and Prevention of Injuries Credits: 3 • FNDH 340 –Food and Health: Safety, Allergies, and Intolerances Credits: 3 • FNDH 352- Personal Wellness Credits: 3 <ul style="list-style-type: none"> • FNDH 553 – Pharmacology in Athletic Training Credits: 2 • FNDH 554 – General Medical Conditions in the Athlete Credits: 2 • FNDH 620 – Nutrient Metabolism Credits: 3 • FNDH 631 – Clinical Nutrition I Credits: 3 • FNDH 632- Clinical Nutrition II Credits: 3 • FNDH 635-Nutrition and Exercise Credits: 3 <p>Unrestricted electives (36-40 credit hours)</p> <p>Total credit hours required for graduation (120)</p>
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Human Nutrition (B.S.)-Nutritional Sciences - Change

Rationale: Due to BIOL 340 being removed and replaced with two courses, BIOL 341 & 342, we had to change prereqs for this degree.

Impact (i.e. if this impacts another unit) – Statement should include the date when the head of a unit was contacted, and the response or lack of: The impact on BIOL should not change as we are implementing changes they have already made by making the one class into 2 courses. The College of Human Ecology and the Dept. of Biology discussed the changes prior to the Faculty Senate AAC approval. Adequate changes were made by Biology that would allow these courses still be suitable for this degree.

<p>The nutritional sciences program emphasizes the biological and physical sciences and provides students with the background necessary to understand the function and metabolism of nutrients. The program provides an excellent foundation for students considering careers in medicine, dentistry, and other health science professions. The curriculum is designed to meet academic requirements for entering medical school, dental school, or allied health professions.</p>	<p>The nutritional sciences program emphasizes the biological and physical sciences and provides students with the background necessary to understand the function and metabolism of nutrients. The program provides an excellent foundation for students considering careers in medicine, dentistry, and other health science professions. The curriculum is designed to meet academic requirements for entering medical school, dental school, or allied health professions.</p>
<p>Bachelor’s degree requirements</p>	<p>Bachelor’s degree requirements</p>
<p>General requirements (30–32 credit hours)</p>	<p>General requirements (30–32 credit hours)</p>
<p><i>Grades of C or higher required</i></p>	<p><i>Grades of C or higher required</i></p>
<p><i>Communications (8–9 credit hours)</i></p>	<p><i>Communications (8–9 credit hours)</i></p>
<ul style="list-style-type: none"> • ENGL 100 – Expository Writing I Credits: 3 • ENGL 200 – Expository Writing II Credits: 3 	<ul style="list-style-type: none"> • ENGL 100 – Expository Writing I Credits: 3 • ENGL 200 – Expository Writing II Credits: 3

One of the following courses

- COMM 105 – Public Speaking
IA Credits: 2
- or
- COMM 106 – Public Speaking
I Credits: 3

Social Science (9 credit hours)

- ECON 110 – Principles of
Macroeconomics Credits: 3
- PSYCH 110 – General
Psychology Credits: 3
- SOCIO 211 – Introduction to
Sociology Credits: 3

Humanities Electives (6 credit hours)

*(Only a course of 3 credits or more will
apply.)*

Natural and Physical Sciences

(See Professional Studies)

Quantitative Studies (6–7 credit hours)

- STAT 325 – Introduction to
Statistics Credits: 3

One of the following courses

- MATH 150 – Plane
Trigonometry Credits: 3
- or
- MATH 220 – Analytic Geometry and
Calculus I Credits: 4

One of the following courses

- COMM 105 – Public Speaking
IA Credits: 2
- or
- COMM 106 – Public Speaking
I Credits: 3

Social Science (9 credit hours)

- ECON 110 – Principles of
Macroeconomics Credits: 3
- PSYCH 110 – General
Psychology Credits: 3
- SOCIO 211 – Introduction to
Sociology Credits: 3

Humanities Electives (6 credit hours)

*(Only a course of 3 credits or more will
apply.)*

Natural and Physical Sciences

(See Professional Studies)

Quantitative Studies (6–7 credit hours)

- STAT 325 – Introduction to
Statistics Credits: 3

One of the following courses

- MATH 150 – Plane
Trigonometry Credits: 3
- or
- MATH 220 – Analytic Geometry and
Calculus I Credits: 4

Integrative Human Ecology Courses (1 credit hour)

- GNHE 210 – Foundations of Human Ecology **Credits: 1**

Professional studies (78 credit hours)

(Grade of C or higher required.)

Biological Sciences (20 credit hours)

- BIOL 198 – Principles of Biology **Credits: 4**
- BIOL 450 – Modern Genetics **Credits: 4**
- BIOL 455 – General Microbiology **Credits: 4**

Physical Sciences (27 credit hours)

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

Integrative Human Ecology Courses (1 credit hour)

- GNHE 210 – Foundations of Human Ecology **Credits: 1**

Professional studies (78 credit hours)

(Grade of C or higher required.)

Biological Sciences (20 credit hours)

- BIOL 198 – Principles of Biology **Credits: 4**
- BIOL 341 – Human Body I **Credits: 4**
- BIOL 342 – Human Body II **Credits: 4**
- BIOL 450 – Modern Genetics **Credits: 4**
- BIOL 455 – General Microbiology **Credits: 4**

Physical Sciences (27 credit hours)

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

Nutrition (31 credit hours)

- FNDH 115 – Introduction to Health and Nutrition Professions **Credits: 2**
- FNDH 132 – Basic Nutrition **Credits: 3**
- FNDH 400 – Human Nutrition **Credits: 3**
- FNDH 413 – Science of Food **Credits: 4**
- FNDH 450 – Nutritional Assessment **Credits: 2**
- FNDH 510 – Life Span Nutrition **Credits: 2**
- FNDH 575 – Research Methods and Scientific Communication in Health Sciences **Credits: 3**
- FNDH 600 – Public Health Nutrition **Credits: 3**
- FNDH 620 – Nutrient Metabolism **Credits: 3**
- FNDH 631 – Clinical Nutrition I **Credits: 3**
- FNDH 632 – Clinical Nutrition II **Credits: 3**

Unrestricted electives (10–12 credit hours)

Total credit hours required for graduation (120)

Nutrition (31 credit hours)

- FNDH 115 – Introduction to Health and Nutrition Professions **Credits: 2**
- FNDH 132 – Basic Nutrition **Credits: 3**
- FNDH 400 – Human Nutrition **Credits: 3**
- FNDH 413 – Science of Food **Credits: 4**
- FNDH 450 – Nutritional Assessment **Credits: 2**
- FNDH 510 – Life Span Nutrition **Credits: 2**
- FNDH 575 – Research Methods and Scientific Communication in Health Sciences **Credits: 3**
- FNDH 600 – Public Health Nutrition **Credits: 3**
- FNDH 620 – Nutrient Metabolism **Credits: 3**
- FNDH 631 – Clinical Nutrition I **Credits: 3**
- FNDH 632 – Clinical Nutrition II **Credits: 3**

Unrestricted electives (10–12 credit hours)

Total credit hours required for graduation (120)

Nutrition Minor - NEW

Impact (i.e. if this impacts another unit) – Statement should include the date when the head of a unit was contacted, and the response or lack of: No negative impact on other units, as all classes are through our department.

Purpose:

The purpose for our Nutrition Minor is to provide specific nutrition training to individuals seeking knowledge and training in nutrition to compliment their other academic and professional pursuits.

This minor will provide enhanced nutrition content and experiences for health-focused students across the university. The courses are designed to complement most pre-health degrees at Kansas State University. The arrangement of courses is a great fit for many students. Additionally, this minor will be available to Global Campus students.

Evidence of demand: The expected growth in nutrition and related jobs is expected to be 15%, and “much greater than average” (bureau of labor statistics, www.bls.gov). Thus, we want to be able to provide nutrition content to complement majors at Kansas State University, and this will be available to students through Global Campus.

Curricula:

Core (11-12 cr hr)

FNDH 132: Basic Nutrition (3)

FNDH 400: Human Nutrition (3)

FNDH 450: Nutrition Assessment (2)

FNDH 340: Food and Health (3)

OR

FNDH 413: Science of Food (4)

Select two of the following:

FNDH 510: Life Span Nutrition (2)

FNDH 600: Public Health Nutrition (3)

FNDH 620: Nutrient Metabolism (3)

FNDH 635: Nutrition and Exercise (3)

Total hours: 15-16

Personal Financial Planning Minor - NEW

Personal financial planning is a rapidly growing field and a necessary personal skill in today's complex financial market. The personal financial planning minor provides students with a cursory overview of the financial planning profession.

At least 9 of the required 15 credit hours must be completed at Kansas State University. Students must achieve a cumulative 2.50 GPA in the five required courses to complete the minor.

Required:

PFP 105 Introduction to Personal Financial Planning Credits: 3

PFP 305 Advanced Personal Financial Planning Credits: 3

Choose 9 hours from the following options:

PFP 460 Retirement Planning Concepts Credits: 3

PFP 462 Personal Investment Concepts I Credits: 3

PFP 464 Estate Planning Concepts Credits: 3

PFP 466 Personal Risk Management and Insurance Planning Credits: 3

PFP 472 Personal Income Tax Concepts Credits: 3

PFP 482: Personal Investment Concepts II: 3

Total Hours Required: 15

Rationale: With the increased complexity in the financial markets, there is a need for education related to personal finance matters. Several professions employ individuals from other disciplines with the expectation that they will understand the personal financial markets. We expect the personal financial planning minor to be attractive to students for personal and professional reasons. This minor will provide overview content needed to prepare for a career as a Personal Financial Advisor for students not in the Personal Financial Planning major. It will not be offered externally, as the required course PFP 305 also has multiple prerequisites, including a KSU cumulative GPA of 2.5 or better. Every course for the minor will be offered both online and on-campus before the earliest effective date for this proposal. There are no specific admission requirements above and beyond the university standards, and our current courses are able to accept the additional influx of students.

Impact (i.e. if this impacts another unit): We expect to attract students from majors across campus with a special emphasis on students in the College of Business and College of Agriculture. The College of Agriculture responded 2/9/18. The College of Business responded 4/2/18.

Kiersten,

I have reviewed the proposals for minors in Personal Financial Planning and Personal Financial Counseling as well as the Kansas Insurance Certificate. I have also received a response from the Department of Agricultural Economics regarding your proposals. As the programs are comprised entirely of PFP courses and do not duplicate efforts in the College of Agriculture, we support your proposals.

Additionally, we believe there may be students in Agricultural Economics or Agribusiness who would be interested in the Personal Financial Planning Minor and the Kansas Insurance Certificate. We appreciate the opportunity to review these proposals and wish you the best in the approval process.

Shannon

Shannon G. Washburn, Ph.D.
Assistant Dean for Academic Programs and
Professor of Agricultural Education
College of Agriculture
117 Waters Hall
Kansas State University
Manhattan, KS 66506
Ph. 785-532-6151; FAX 785-532-6897
sgw@ksu.edu
www.ag.ksu.edu

From: Kiersten Wukitsch
Sent: Thursday, February 08, 2018 1:58 PM
To: Don Boggs <dboggs@ksu.edu>
Cc: Shannon Washburn <sgw@ksu.edu>
Subject: RE: Impact Statement for Personal Financial Planning Minors

Thank you, Dr. Boggs.

Additionally, I now have the proposal for the Kansas Insurance Certificate. I have attached it to be reviewed with the others. Thank you both for your help in this matter.

Sincerely,

Kiersten Wukitsch
Student Development Assistant
School of Family Studies and Human Services
College of Human Ecology, Kansas State University
308 Justin Hall
Manhattan, KS 66506-1403

From: Don Boggs

I am forwarding to assistant dean Shannon Washburn who works with our course and curriculum issues.

From: Kiersten Wukitsch
Sent: Thursday, February 08, 2018 12:27 PM
To: Don Boggs <dboggs@ksu.edu>
Subject: Impact Statement for Personal Financial Planning Minors

Hello Dr. Boggs,

I am not certain who in your college would be the best person to review the attached proposals for two proposed minors from Personal Financial Planning for an impact statement. PFP will be proposing a minor in Personal Financial Planning that covers much of the initial coursework required for the Certified

Financial Planner Exam, and a minor in Financial Counseling that will satisfy the educational requirement for students who want to earn the Accredited Financial Counselor designation. As we anticipate these minors being of significant interest to students in the Agribusiness major and potentially in the Agricultural Economics major, we are required to get an impact statement from your office. We do not foresee any impact on your facilities or faculty, as all of these courses are already offered through our program, but at the very least, your advisors may want to know if and when these minors are approved. We will also be proposing a Kansas Insurance Certificate in the near future that some of your students may be interested in.

Thank you for your help in this matter.

Sincerely,

Kiersten Wukitsch

Student Development Assistant

School of Family Studies and Human Services

College of Human Ecology, Kansas State University

308 Justin Hall

Manhattan, KS 66506-1403

Hi Kiersten,

Do I need to formally write something up?

I don't think there will be an impact in the Department of Finance.

Thanks,

Ansley

Ansley Chua

Associate Professor

Department Head of Finance

Kansas State University

(785) 532-6031

achua@ksu.edu

From: Kiersten Wukitsch

Sent: Thursday, March 8, 2018 3:10 PM

To: Ansley Chua <achua@ksu.edu>

Subject: RE: Impact Statement for PFP Minors

No, tomorrow is more than fine! In fact, you have a little more time than that. My understanding is that they like to review proposals for a week or two before their meeting, so as long as we have these by Spring Break, they should be attached to the proposals in time for the final reviews before their April meeting.

Thank you!

Kiersten Wukitsch

From: Frederick Burrack
Sent: Thursday, February 8, 2018 12:41 PM
To: Kiersten Wukitsch
Subject: RE: Financial Counseling Minor

Kiersten,

My advice is to describe how the students in the minor are assessed through the major program. If the students in the minor are included in some of the assessments associated with the major, then there does not need be any other assessments. You can state this in your proposal. If you have questions, let me know, but I think this is the best way to address this. Just say so in your proposal.

Fred

From: Kiersten Wukitsch
Sent: Thursday, February 8, 2018 12:35 PM
To: Frederick Burrack <fburrack@ksu.edu>
Subject: Financial Counseling Minor

Hello Fred,

I am working on revisions to the rationale for both of our minor proposals that clarifies several different questions, including whether this is a stand-alone. I should have them loaded by 2 PM, but just to answer your question, both minors should be associated with the PFP major, as each addresses one aspect of the PFP major. The PFP minor will help students on the path to taking the Certified Financial Planner® Exam, whereas the Financial Counseling minor covers the educational requirements for the Accredited Financial Counselor® designation. Both options are currently ONLY available to K-State students through the PFP major, but minors have been requested repeatedly from students in the College of Business and the Agribusiness major, as they are very popular designations in the industry. I hope this addresses your concerns!

Thank you,

Kiersten Wukitsch

Student Development Assistant
School of Family Studies and Human Services
College of Human Ecology, Kansas State University
308 Justin Hall
Manhattan, KS 66506-1403

Technology & Aviation, K-State Polytechnic

Engineering Technology-Electronic and Computer Engineering Technology Option (AETA-EC)

http://catalog.k-state.edu/preview_program.php?catoid=40&poid=13202

<p>CURRENT: Electronic and computer engineering technology option (AETA-EC) 64 hours required for graduation</p> <p>Freshman Fall semester (15 credit hours) ECET 100 Basic Electronics4 ECET 250 Digital Logic4 EDCEP 111 The University Experience1 ENGL 100 Expository Writing I3 MATH 100 College Algebra3</p> <p>Spring semester (16 credit hours) CHM 110 General Chemistry3 CHM 111 General Chemistry Lab1 CMST 250 Hardware and Network Fundamentals3 COMM 106 Public Speaking 13 ECET 101 Direct Current Circuits3 MATH 150 Plane Trigonometry3</p> <p>Sophomore Fall semester (16 credit hours) ECET 110 Semiconductor Electronics4 ECET 201 Alternating Current Circuits4 MATH 220 Analytic Geometry and Calculus I4 PHYS 113 General Physics I4</p> <p>Spring semester (17 credit hours) ECET 240 Electronics Manufacturing3 ECET 335 Industrial Control Topics1 ECET 350 Microprocessor Fundamentals4 ENGL 302 Technical Writing3 MET 382 Industrial Instrumentation and Controls3 Humanities/Social Science elective3</p>	<p>PROPOSED: Electronic and computer engineering technology option (AETA-EC) 62 hours required for graduation</p> <p>Freshman Fall semester (16 credit hours) COT 299 Mastering Academic Conversations3 ECET 100 Basic Electronics4 ECET 250 Digital Logic3 ENGL 100 Expository Writing I3 MATH 100 College Algebra3</p> <p>Spring semester (16 credit hours) CHM 110 General Chemistry3 CHM 111 General Chemistry Lab1 CMST 250 Hardware and Network Fundamentals3 COMM 106 Public Speaking 13 ECET 101 Direct Current Circuits3 MATH 150 Plane Trigonometry3</p> <p>Sophomore Fall semester (16 credit hours) ECET 110 Semiconductor Electronics4 ECET 201 Alternating Current Circuits4 MATH 220 Analytic Geometry and Calculus I4 PHYS 113 General Physics I4</p> <p>Spring semester (14 credit hours) ECET 240 Electronics Manufacturing3 ECET 335 Industrial Control Topics1 ECET 350 Microprocessor Fundamentals4 ENGL 302 Technical Writing3 MET 382 Industrial Instrumentation and Controls3</p>
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Rationale: Digital Logic (ECET 250) has been reduced by 1 credit hour to 3 credits in order to avoid redundancies. The University Experience (EDCEP 111) is being replaced with Mastering Academic Conversations (COT 299) allowing us to maintain 4 tags needed (ethical reasoning, aesthetics, science, empirical and quantitative) and mirroring the credit distribution in the ECET Bachelor.

Impact (i.e. if this impacts another unit) – Statement should include the date when the head of a unit was contacted, and the response or lack of: No impact on other units. No impact on other units. The social science/humanities elective removal is being replace with COT 299, which has an humanities emphasis.

Engineering Technology-Mechanical Engineering Technology Option (AETA-MT)

http://catalog.k-state.edu/preview_program.php?catoid=40&poid=13201

<p>CURRENT: Mechanical engineering technology option (AETA-MT) 68 hours required for graduation</p> <p>Freshman Fall 1st Semester (17 credit hours) ECET 100 Basic Electronics 4 EDCEP111 University Experience 1 ENGL 100 Expository Writing I..... 3 MATH 100 College Algebra..... 3 MET 111 Technical Graphics..... 3 MET 121 Manufacturing Methods 3</p> <p>Spring 2nd Semester (18 credit hours) CHM 110 General Chemistry 3 CHM 111 General Chemistry Lab..... 1 COMM 106 Public Speaking 3 MATH 150 Plane Trigonometry 3 MET 117 Mechanical Modeling and Detailing 3 MET 125 Computer-Numerical-Controlled Machine Processes..... 2 Humanities/Social Science Elective 3</p> <p>Sophomore Fall 3rd Semester (17 credit hours) ETB 310 Applied Data Analysis and Tools..... 3 MATH 220 Analytic Geometry and Calculus I..... 4 MET 211 Statics 3 MET 252 Fluid Power Technology 3 PHYS 113 General Physics I..... 4</p> <p>Spring 4th Semester (16 credit hours) ENGL 302 Technical Writing..... 3 MET 230 Automated Manufacturing Systems I 3 MET 231 Physical Materials and Metallurgy 3 MET 245 Material Strength and Testing ... 3 MET 264 Machine Design Technology I .. 4</p>	<p>PROPOSED: Mechanical engineering technology option (AETA-MT) 61 hours required for graduation</p> <p>Freshman Fall 1st Semester (16 credit hours) ECET 100 Basic Electronics 4 MATH 100 College Algebra..... 3 MET 111 Technical Graphics..... 3 MET 121 Manufacturing Methods 3 <u>Humanities/Social Science elective 3</u></p> <p>Spring 2nd Semester (15 credit hours) CHM 110 General Chemistry 3 CHM 111 General Chemistry Lab 1 <u>ENGL 100 Expository Writing I..... 3</u> MATH 150 Plane Trigonometry 3 MET 117 Mechanical Modeling and Detailing 3 MET 125 Computer-Numerical-Controlled Machine Processes 2</p> <p>Sophomore Fall 3rd Semester (17 credit hours) <u>COMM 106 Public Speaking..... 3</u> MATH 220 Analytic Geometry and Calculus I..... 4 MET 211 Statics 3 MET 252 Fluid Power Technology 3 PHYS 113 General Physics I..... 4</p> <p>Spring 4th Semester (13 credit hours) MET 230 Automated Manufacturing Systems I 3 MET 231 Physical Materials and Metallurgy 3 MET 245 Material Strength and Testing ... 3 MET 264 Machine Design Technology I .. 4</p>
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Rationale: The Associate of Technology in Engineering Technology-Mechanical option prepares students for entry level technician jobs and the program credits can be applied to the bachelors program, which is accredited by ETAC (Engineering Technology Accreditation Commission) of ABET (Accreditation Board for Engineering and Technology). Our program addresses three overarching areas: a) design, b) manufacturing, and c) industrial automation.

This prepares our graduates to meet current and emerging workforce needs. Changes in curriculum will reduce the total credits to 61. Further reductions will jeopardize the integrity of the program, the ability to maintain standards, program mission, expected student outcomes, and the preparation of graduates to meet industry advisory board requests.

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

Polytechnic Math/Science: On March 1st, matrix team, comprised of representatives of multiple academic disciplines at K-State Polytechnic met to discuss proposed mechanical engineering technology program course and curriculum changes. After discussion with the matrix team ENGL 302 and ETB 310 Data Analysis and Tools courses were removed from the associates program as requirement at the request of mechanical faculty. ENGL 302 and ETB 310 were moved to bachelors program. Math/Science, humanities, social science, and matrix team have been consulted and acknowledge the changes.

B.S. - Engineering Technology-Mechanical Engineering Technology Option (BETB-MT)
http://catalog.k-state.edu/preview_program.php?catoid=40&poid=13200

<p>CURRENT: Mechanical engineering technology option (BETB-MT) 130 hours required for graduation</p> <p>Freshman Fall 1st Semester (17 credit hours) ECET 100 Basic Electronics 4 EDCEP111 University Experience 1 ENGL 100 Expository Writing I..... 3 MATH 100 College Algebra..... 3 MET 111 Technical Graphics..... 3 MET 121 Manufacturing Methods 3</p> <p>Spring 2nd Semester (18 credit hours) CHM 110 General Chemistry..... 3 CHM 111 General Chemistry Lab..... 1 COMM 106 Public Speaking I..... 3 MATH 150 Plane Trigonometry 3 MET 117 Mechanical Modeling and Detailing 3 MET 125 Computer-Numerical-Controlled Machine Processes..... 2 Humanities/Social Science Elective 3</p> <p>Sophomore Fall 3rd Semester (17 credit hours) ETB 310 Applied Data Analysis and Tools..... 3 MATH 220 Analytic Geometry and Calculus I..... 4 MET 211 Statics 3 MET 252 Fluid Power Technology 3 PHYS 113 General Physics I..... 4</p> <p>Spring 4th Semester (17 credit hours) MATH 221 Analytic Geometry and Calculus II..... 4 MET 230 Automated Manufacturing Systems I 3 MET 231 Physical Materials and Metallurgy 3 MET 245 Material Strength and Testing ... 3 MET 264 Machine Design Technology I .. 4</p> <p>Junior Fall 5th Semester (15 credit hours) ECET304 Electric Power and Devices..... 3 ENGL 200 Expository Writing II 3 MET 246 Dynamics of Machines 3 MET 314 Finite Element Analysis and Design Modeling 3 MET 353 Fluid Mechanics 3</p>	<p>PROPOSED: Mechanical engineering technology option (BETB-MT) 122 hours required for graduation</p> <p>Freshman Fall 1st Semester (16 credit hours) ECET 100 Basic Electronics 4 MATH 100 College Algebra..... 3 MET 111 Technical Graphics..... 3 MET 121 Manufacturing Methods 3 Humanities/Social Science elective 3</p> <p>Spring 2nd Semester (15 credit hours) CHM 110 General Chemistry..... 3 CHM 111 General Chemistry Lab 1 ENGL 100 Expository Writing I..... 3 MATH 150 Plane Trigonometry 3 MET 117 Mechanical Modeling and Detailing 3 MET 125 Computer-Numerical-Controlled Machine Processes 2</p> <p>Sophomore Fall 3rd Semester (17 credit hours) COMM 106 Public Speaking I..... 3 MATH 220 Analytic Geometry and Calculus I..... 4 MET 211 Statics 3 MET 252 Fluid Power Technology 3 PHYS 113 General Physics I..... 4</p> <p>Spring 4th Semester (16 credit hours) ENGL 200 Expository Writing II 3 MET 230 Automated Manufacturing Systems I 3 MET 231 Physical Materials and Metallurgy 3 MET 245 Material Strength and Testing ... 3 MET 264 Machine Design Technology I .. 4</p> <p>Junior Fall 5th Semester (15 credit hours) ECET 304 Electric Power and Devices..... 3 ETB 310 Applied Data Analysis and Tools..... 3 MET 246 Dynamics of Machines 3 MET 314 Finite Element Analysis and Design Modeling 3 MET 365 Machine Design Technology II. 3</p> <p>Spring 6th Semester (15 credit hours) ENGL 302 Technical Writing..... 3 MET 346 Elements of Mechanisms..... 3</p>
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<p>Spring 6th Semester (15 credit hours)</p> <p>ENGL 302 Technical Writing 3</p> <p>MET 346 Elements of Mechanisms..... 3</p> <p>MET 365 Machine Design Technology II.....3</p> <p>MET382 Industrial Instrumentation and Controls 3</p> <p>MET 471 Thermodynamics and Heat Transfer.....3</p> <p>Senior Fall 7th Semester (17 credit hours)</p> <p>MET 462 Senior Design Project I..... 1</p> <p>MET481 Automated Manufacturing Systems II 3</p> <p>PHYS 114 General Physics II4</p> <p>Humanities/Social Science Elective 3</p> <p>*Humanities/Social Science Elective3</p> <p>Technical Elective.....3</p> <p>Spring 8th Semester (14 credit hours)</p> <p>MET 464 Senior Design Project II 2</p> <p>Business Elective 3</p> <p>Computer Elective.....3</p> <p>*Technical Elective..... 3</p> <p>*Humanities/Social Science elective 3</p> <p>*Marked electives must be 300 and above upper-level courses.</p>	<p>MET 353 Fluid Mechanics 3</p> <p>MET 382 Industrial Instrumentation and Controls 3</p> <p><u>*Technical Elective</u>.....3</p> <p>Senior Fall 7th Semester (13 credit hours)</p> <p>MET 462 Senior Design Project I..... 1</p> <p>MET 481 Automated Manufacturing Systems II 3</p> <p><u>MET 471 Thermodynamics and Heat Transfer</u> 3</p> <p>Humanities/Social Science elective 3</p> <p><u>*Computer Elective</u> 3</p> <p>Spring 8th Semester (15 credit hours)</p> <p>MET 464 Senior Design Project II 2</p> <p>Business Elective 3</p> <p><u>**Math/Science Elective</u> 4</p> <p>*Technical Elective..... 3</p> <p>*Humanities/Social Science elective 3</p> <p>*Marked electives must be 300 and above upper-level courses.</p> <p><u>** MATH 221, PHYS 114 or approved Math/Science Elective.</u></p>
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Rationale: The MET program is accredited by ETAC (Engineering Technology Accreditation Commission) of ABET (Accreditation Board for Engineering and Technology) and prepares its graduates with a broader skill set than a degree with a single focus. Our program addresses three overarching areas: a) design, b) manufacturing, and c) industrial automation. This prepares our graduates to meet current and emerging workforce needs. Changes in curriculum will reduce the total credits to 122. Further reductions will jeopardize the integrity of the program, the ability to maintain national accreditation, standards, program mission, expected student outcomes, and the preparation of graduates to meet industry advisory board requests.

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

Polytechnic Math/Science: On March 1st matrix team, comprised of representatives of multiple academic disciplines at K-State Polytechnic met to discuss proposed mechanical engineering technology program course and curriculum changes. After discussion with the matrix team MATH 221 Calculus II and PHYS 114 Physics II courses were removed as requirements at the request of mechanical faculty and a 4 credit hour Math/Science elective was added at the request of math/science faculty and other matrix team members. Further, at the recommendation of the matrix team, humanities and social sciences was reduced from four to three courses. This change will not have significant impact because students still need to take three humanities and social science courses. Math/Science, humanities, social science, and matrix team have been consulted and acknowledge the changes.

English: Changes in the English sequence between ENGL 200 and ENGL 302 were made at the suggestion of English faculty representative of the matrix team.

Unmanned Aircraft Systems Minor (RUAS) - Change

Rationale: The UAS faculty have determined that multirotor UAS flight training is important to include in the UAS minor to produce a more well-rounded graduate with experience on multiple UAS platforms. Additionally, UAS 115 requires students to earn their Remote Pilot Certificate from the Federal Aviation Administration, which will be an important professional milestone for students in the UAS minor.

Impact (i.e. if this impacts another unit) – Statement should include the date when the head of a unit was contacted, and the response or lack of: No impact on any unit

Unmanned Aircraft Systems Minor (RUAS)	Unmanned Aircraft Systems Minor (RUAS)
<p>Intended for those not majoring in unmanned aircraft systems (UAS), the UAS minor provides a solid grounding in topics that include the current regulatory environment, platform design and field operations with an emphasis on the acquisition of information and processing of data obtained through low altitude remote sensing and surveillance. Students pursuing majors in areas such as manned aviation, agriculture, biology, civil engineering, criminal justice, ecology, emergency management, environmental sciences, geography, geology, landscape architecture and wildlife science and management may benefit from completion of this academic minor, particularly those individuals whose academic interests or career goals include the use of remotely sensed data products for research or commercial spatial, metric or informatory applications.</p> <p>Two areas of emphasis are provided to accommodate students having diverse interests: The Air Vehicle Operations Focus is intended for those holding the minimum of an FAA-issued private pilot license with an instrument rating (or equivalent) and are interested in field operations and in flying unmanned aircraft in the National Airspace; The Data Acquisition and Management Focus, is offered for those whose academic or career goals require greater knowledge of the acquisition and use of information and data obtained from the operation of unmanned aircraft as remote sensing platforms.</p> <p>Minor Requirements (15 Hours) Due to course sequencing, a minimum of four semesters in residence will be required for completion of the minor. Students must achieve a</p>	<p>Intended for those not majoring in unmanned aircraft systems (UAS), the UAS minor provides a solid grounding in topics that include the current regulatory environment, platform design and field operations with an emphasis on the acquisition of information and processing of data obtained through low altitude remote sensing and surveillance. Students pursuing majors in areas such as manned aviation, agriculture, biology, civil engineering, criminal justice, ecology, emergency management, environmental sciences, geography, geology, landscape architecture and wildlife science and management may benefit from completion of this academic minor, particularly those individuals whose academic interests or career goals include the use of remotely sensed data products for research or commercial spatial, metric or informatory applications.</p> <p>Two areas of emphasis are provided to accommodate students having diverse interests: The Air Vehicle Operations Focus is intended for those holding the minimum of an FAA-issued private pilot license with an instrument rating (or equivalent) and are interested in field operations and in flying unmanned aircraft in the National Airspace; The Data Acquisition and Management Focus, is offered for those whose academic or career goals require greater knowledge of the acquisition and use of information and data obtained from the operation of unmanned aircraft as remote sensing platforms.</p> <p>Minor Requirements (16 Hours) Due to course sequencing, a minimum of four semesters in residence will be required for completion of the minor. Students must achieve a</p>

minimum GPA of 2.5 and a grade of “C” or better is required in all coursework.

**Current
Required Courses (9 hours)**

UAS 270 Introduction to Unmanned Aircraft Systems 3
UAS 474 Introduction to the Processing of Remotely Sensed Data 3
UAS 475 Data Acquisition and Post-processing 3

Elective Courses (6 hours)

UAS 370 Small Unmanned Aircraft Systems Design and Construction 3
UAS 373 UAS Design for Non-Aviators 3
UAS 461 Autonomous Flight Simulation Lab . 1
UAS 463 Introduction to Autopilots and Mission Planning for Non-Aviators 3
UAS 465 Autopilot Integration 2

minimum GPA of 2.5 and a grade of “C” or better is required in all coursework.

**Proposed
Required Courses (10 hours)**

UAS 115 Professional UAS Multi-rotor Flight Lab 1

UAS 270 Introduction to Unmanned Aircraft Systems 3
UAS 474 Introduction to the Processing of Remotely Sensed Data 3
UAS 475 Data Acquisition and Post-processing 3

Elective Courses (6 hours)

UAS 370 Small Unmanned Aircraft Systems Design and Construction..... 3
UAS 373 UAS Design for Non-Aviators 3
UAS 461 Autonomous Flight Simulation Lab . 1
UAS 463 Introduction to Autopilots and Mission Planning for Non-Aviators 3
UAS 465 Autopilot Integration 2