

Council of Chief Academic Officers

Wednesday, March 16, 2011
9:30 a.m.
or upon adjournment of SCOCAO
Kathy Rupp Conference Room
Reconvene Noon to 1:15 p.m.
Kathy Rupp Conference Room
1000 SW Jackson Street Suite 520
Kansas Board of Regents

AGENDA

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1. Approve Minutes of February 16, 2011 [Attachment 1]	3
2. Program Requests	
a. ESU Request to Change the name of the Bachelor of Integrated Studies degree to the Bachelor of Interdisciplinary Studies [Attachment 2]	17
b. KU Request to Change the Name of the Special Studies graduate degree program to Interdisciplinary Studies. [Attachment 3]	18
3. Informational Items	
a. KSU – A New Minor in Aerospace Studies in the College of Arts and Sciences in the Department of Aerospace Studies and College of Technology & Aviation - Department of Aviation - Reorganize Bachelor of Science in Aeronautical Technology by:	
• Adding Options in:	
○ Air Traffic Control Management (BATN-ATC)	
○ Avionics Systems and Management (BATN-AVIO)	
○ Airport Management (BATN-APMG)	
○ Aviation Maintenance Management (BATN-AMAP)	
○ Professional Pilot (BATN-PPILB)	
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• Dropping:	
○ Drop: Bachelor of Science in Aeronautical Technology Aviation Maintenance (AVMB)	
○ Drop: Bachelor of Science in Aeronautical Technology Professional Pilot (PPILB) [Attachment 4]	19
c. PSU - Electronic Embedded Systems Emphasis within BSET Electronics Engineering Technology Major (CIP: 15.0399) [Attachment 5]	24
4. Student Learning Outcomes Assessment	

5. Other Business

Library Consortium

- a. Benefits of a formal library consortium with dedicated staff to collaborate with academic institutions in selecting and negotiating information resources.**
- b. Benefits (beyond licensed databases) of an academic library consortium as a shared resource in the state of Kansas. [Attachment 6]**

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AGENDA MATERIALS DUE	MEETING DATES	LUNCH ROTATION
August 25, 2010	September 15, 2010	KSU
September 20, 2010	October 20, 2010	PSU
October 20, 2010	November 17, 2010	ESU
November 16, 2010	December 15, 2010	WSU
December 15, 2010	January 19, 2011	KU
January 19, 2011	February 16, 2011	KUMC
February 16, 2011	March 16, 2011	Washburn U
March 23, 2011	April 20, 2011	FHSU
April 20, 2011	May 18, 2011	KSU
May 18, 2011	June 15, 2011	PSU

Council of Chief Academic Officers

Wednesday, February 17, 2011

9:30 a.m. – 10:30 a.m.

Kathy Rupp Conference Room

Curtis State Office Building

Reconvene at

12:00 p.m. – 1:15 p.m.

Kathy Rupp Conference Room

Curtis State Office Building

1000 SW Jackson Street Suite 520

Kansas Board of Regents

MINUTES

The Council of Chief Academic Officers met on Wednesday, February 17, 2011 in the Kathy Rupp Conference Room, Curtis State Office Building in Topeka, Kansas at 9:30 a.m. and reconvened in the Kathy Rupp Conference Room at 12:00 p.m.

Members Present:

Larry Gould, Provost, FHSU

Jeff Vitter, Provost and EVC, KU

April Mason, Provost, KSU

Lynette Olson, Provost, PSU

Allen Rawitch, VCAA, KU Med Center

Tes Mehring, Provost, ESU

Rick Muma for Gary Miller, Provost, WSU

Randy Pembroke, VPAA, WU

Gary Alexander, KBOR

Others Present:

Ruth Dyer, KSU; Kim Krull, Cloud CC; Alysia Johnston, Coffeyville CC; Jim Williams, ESU; Barbara Romzek, KU; and Keith Pickus, WSU

Staff Present

Jean Redeker, KBOR, Jacqueline Johnson, KBOR and Joan Warren, KBOR

Approve Minutes of January 19, 2010

Tes Mehring moved and Randy Pembroke seconded the motion to approve the Minutes of January 19, 2011, as submitted. No discussion followed. Motion carried.

FHSU – Request for Approval of a Bachelor of Science in Information Systems Engineering (15.1299) (SECOND READING)

Comments and concerns were sent to Fort Hays State University regarding its proposal for a new Bachelor of Science in Information Systems Engineering (15.1299). Larry Gould, FHSU, responded to the concerns and maintains the program is unique and will provide students access to this type of program in western Kansas. Support for the program will come from sources other than Kansas Connect.

The university letters regarding concerns about the program are attached to these minutes.

Discussion followed:

- It was suggested that this proposal could be an option under an existing program
- Engineering students have to have an accredited degree
- A better CIP might be the Telecommunications Engineering - 14.1004

Tes Mehring moved and Larry Gould seconded the motion to recommend approval to the Council of Presidents. There was no further discussion. A tie vote occurred.

Program Requests

WSU – Request to Change the Name of the Master of Arts in Gerontology to the Master of Arts in Aging Studies (CIP 30.1101)

Larry Gould moved, and Tes Mehring seconded the motion, to approve the WSU request to change the name of the Master of Arts in Gerontology to the Master of Arts in Aging Studies (CIP 30.1101). Motion carried.

Campus Input on the Retirement Research Survey (FHSU)

COCAO discussed aspects of the survey and potential benefits. This is a voluntary survey and does not require endorsement from the universities. The researchers' plan is to contact retirement age staff with a survey that is strictly voluntary.

Council members asked that when information is distributed to COCAO that the intent for distribution is made clear.

Other Business

Agenda Items when COCAO reconvenes

- (1) Regent McKechnie will meet with the Council to provide information concerning the Transfer and Articulation Task Force intent and progress.
- (2) Request related to low enrollment programs
- (3) Economic Impact Study is on the Board Agenda

Concerns regarding transfer and articulation were discussed:

- Moving too quickly
- Proposed recommendations do not match input
- Need clarification of the scope of the problem
- Need for transparency of policies/procedures
- Establish a procedure that works for the system
- Begin with a workable foundation
- How do you extract the role of “good advising”
- What should the student’s role be
- Affordability
- Available data
- Monitoring ability
 - consistent course numbering
 - set up a bridge system
 - Core Competency Project – maybe begin work on 8 programs

- Faculty primacy
- An appeal option to review each situation

Meeting recessed at 10:55 a.m.

Meeting reconvened at noon in the Kathy Rupp Conference Room

Low Enrollment Programs

The Council discussed low enrollment programs and stated how reporting on interdisciplinary programs is difficult. Where do institutions report the students enrolled in interdisciplinary programs? There are multiple variations on programs that have low enrollment but are essential.

The Council mentioned an example of programs that do not appear cost effective - music programs appear to cost more than they are worth. COCAO asked, how is the formula determined for cost per credit hour?

Transfer and Articulation

Regent McKechnie met with the Council of Chief Academic Officers concerning transfer and articulation.

This year the Regents visited the community colleges. At each Regent's visit, problems with transfer and articulation was mentioned. In response, a Transfer and Articulation Task Force was appointed to research the transfer and articulation issues and make recommendations to the Board of Regents. The Task Force has met twice and discussed various aspects of the issues. Some of the observations made are the need for transparency regarding the transfer and articulation policies and procedures; procedures for appealing decisions; and a systemwide process. The quality of advising that students receive regarding the transfer and articulation of credits has been discussed, as well as student responsibility. Technology, using one portal for transfer and articulation information systemwide, has been mentioned.

The Task Force will meet Thursday, February 17th in the Kansas Board of Regents Board Room. They will discuss draft recommendations. The Task Force is working to find a process for improving transfer and articulation, a method of justifying decisions made – accountability, appeal process, and transparency.

Meeting adjourned at 1:15 p.m.

Sincerely,

Jeff Vitter
Provost and Executive Vice Chancellor
University of Kansas

January 24, 2011

Dr. Gary Alexander
Vice-President for Academic Affairs
The Kansas Board of Regents
1000 SW Jackson Street, Suite 520
Topeka, KS 66612-1368

Re: B.S. Degree in Information Systems Engineering at FHSU

Dear Dr. Alexander:

I asked Glenn E. Prescott, Professor and Chair of KU's Department of Electrical Engineering and Computer Science, to review the proposal for the proposed degree program from Ft. Hays State University and to discuss it with several key individuals within the department. They focused primarily on the curriculum and the potential accreditation issues associated with this program as it is described on the Board of Regents web site.

The BS in Information Systems Engineering (BSISyE) degree fits between the B.S. in Information Technology (BSIT), which is less technical, and the B.S. in Computer Science (BSCS), which is more technical. This particular program is very much a computer science program with a built-in specialty in the study of information systems. Clearly, the BSCS is a broader program of studies, and graduates would qualify for many jobs that the BSISyE graduate would not.

The Information Systems Engineering degree is found in only a few schools in the US as a graduate program of studies. After a fairly extensive search of the web, we found no undergraduate programs in Information Systems Engineering, and that was surprising to us. This program should not be confused with Information Systems, which is an academic program normally found in business schools.

Program Content: The Information Systems Engineering curriculum is focused on the generation, transmission, processing, storage and protection of information, which is a subset of computer science. Graduates of this program would be involved in the design and development of databases, information storage and retrieval systems, and computer networks. They are not engineers of hardware. There is nothing in the FHSU degree program that would prepare a graduate of this program to design and implement any of the hardware they would use in their profession. They are primarily engineers of software that pertains in some way to information. Information Systems Engineers will fit well within large companies where they can design -from a systems perspective -the overall information technology infrastructure. They would not normally be involved in the design of a large enterprise software program (such as PeopleSoft, for example) or developing the software system to land a vehicle on Mars.

Accreditation: Looking at the curriculum proposed by FHSU, there is sufficient math and physics to support the study of an engineering discipline. However, it appears that most of the courses in the curriculum don't require calculus at any level, which is inconsistent with an engineering program. Several of the courses in their curriculum are also part of a certificate program in internetworking. This led us to question the accreditation issues that might be involved here.

One difficulty the BSISyE program will face is that it will have to satisfy two accreditation bodies within the Accreditation Board for Engineering and Technology (ABET) – the Computing Accreditation Commission (CAC) and the Engineering Accreditation Commission (EAC).

The FHSU proposal articulates a curriculum and assessment plan that should satisfy the general accreditation requirements for CS/IS/IT. However, if it is evaluated specifically as an IS program (instead of just the general CS requirements), then accreditation may be difficult to achieve. Furthermore, there may be difficulty in achieving accreditation as an engineering program because of a lack of engineering courses.

General Observations: There is no doubt that Kansas is in desperate need of more IT professionals. Companies are begging for more graduates and FHSU serves an area of Kansas that other Universities do not. As such, FHSU needs to provide a rich set of opportunities for their students and potential employers in the information technology industry.


However, it is not clear to us what the BSISyE degree provides that a CS degree does not. The issue in Kansas is not the number of CS-type programs, but that they are undersubscribed. We need more students in CS, not more programs. The FHSU proposal says nothing about how they will fill the program or why it will fill when other similar programs are undersubscribed. The proposal names a collection of employers who would hire students from this program. However, few if any of their support letters come from those companies. Most of the support letters come from economic development organizations and alumni, with a few from local companies.

We believe that this program will compete with CS degrees at KU, K-State and WSU, to some extent. The potential employers identified in the proposal traditionally hire CS/CoE students and not IT students. Thus, if the information technology industry is interested in graduates of the proposed BSISyE program, then this program must either produce a new class of employees that these companies need, or produce graduates that are equivalent to a CS graduate.

Finally, we note that the FHSU proposal anticipates significant funding from the state of Kansas. In these tight budget times, it is unclear whether launching a new and unaccredited engineering program would be the best investment of limited state funds. The three existing accredited engineering programs within the state could better leverage the funds to build their enrollments.

Please contact me if you need further information.

Sincerely,



Jeffrey S. Vitter
Provost and Executive Vice Chancellor

JSV:lb

**Kansas State University Response to the Fort Hays State University
Information Systems Engineering ISE Proposal
February 4, 2011**

From the Fort Hays State University (FHSU) proposal to the Kansas Board of Regents (First Reading, 01/19/2011): FHSU is requesting approval of a Bachelor of Science in Information Systems Engineering (ISE) (CIP: 15.1299). This program is to be housed in the Department of Informatics in the College of Business and Leadership.

Concerns and Issues:

1. **Overlap With Current Programs:** The proposed degree is very similar to the Computer Science (CS) and Information Systems (IS) degrees (particularly the IS degree) offered at the K-State Manhattan campus, and there are numerous similarities in technical course content to the Computer Systems Technology degree offered at the K-State Salina campus. With the exception of possibly two courses, the courses listed in the FHSU ISE degree program are similar to the required and elective courses in the IS undergraduate degree program at K-State. In addition, other K-State CIS courses, which are required in the IS degree at K-State, provide more in-depth foundation in computer logic and hardware. Hence, the proposed FHSU ISE degree has significant overlap with existing degree programs at both the K-State Manhattan and Salina campuses and would duplicate what students can already study at K-State.

The K-State CS and IS degree programs have about 200 and 45 students, respectively. There is plenty of capacity in our current programs to accommodate additional students. The smaller enrollment in the IS degree program also is reflective of the lower market demand for this degree. It is questionable that there is a sufficient demand for IS graduates to support another similar degree program in Kansas.

2. **Limited State Resources:** Based on the suggested degree name, FHSU is proposing to offer an "engineering" degree. To our knowledge, FHSU does not have any other engineering or computer science programs. Providing an engineering degree requires appropriately credentialed faculty members, specifically trained support staff, substantial facilities, equipment and other infrastructure needs. These items are not inexpensive, as is noted in the FHSU proposal. However, because of the budget cuts that have been imposed at our institutions over the last few years and the limited state resources, any effort to expand the numbers of engineering graduates in our state should be done through existing engineering degree programs and colleges such as those at K-State, KU, and WSU.

3. **Accreditation challenges:** Under item 4 in the proposal, FHSU states "No Kansas institution offers an Information Systems Engineering degree". Under item 11, FHSU also states "The program will not seek accreditation until the program moved from initiation to maturity. A program goal will be to seek accreditation through the Accreditation Board for Engineering and Technology (ABET) after the first program review". ABET has four accreditation commissions: Engineering Accreditation Commission (EAC); Computing Accreditation Commission (CAC); Technology Accreditation Commission (TAC); and the Applied Science Accreditation Commission (AAC). Degree programs are accredited based upon program name, curricular content, faculty credentials, available facilities, and supporting infrastructure. Based upon the content of the proposed degree program, the likely accreditation commission would be the CAC. However, neither the CAC nor any of the other commissions have any criteria for an "Information Systems Engineering" degree. The CAC has criteria for Information Systems degrees (or similar names but not with the word "engineering"), and the EAC has a criteria

for a "Systems Engineering" degree (but not Information Systems Engineering). The reason none of the other Kansas Institutions offer an Information Systems Engineering degree is likely because this does not match up with any of the current program options for accreditation from the different ABET commissions.

The CAC criteria for IS degrees also state that "... some full-time faculty, including those responsible for the IS curriculum development, must hold a terminal degree in information systems." The FHSU proposal states that the faculty from mathematics and physics will provide the academic base, and that "... existing Computer Science, Informatics, and Management Information Systems faculty will contribute important coursework." From this description, it is not possible to determine whether the persons responsible for the curriculum design meet the CAC-ABET criterion that requires those individuals to "hold a terminal degree in information systems."

It is unclear how FHSU could accredit this program through ABET. ABET accreditation of any engineering or computer science related program is required in order for students to seek professional licensure. It also is very important to employers, since it ensures that the degree programs meet certain standards.

NOTE: We contacted the University of Maine to learn more about their Information Systems Engineering degree program, since we knew they had stopped offering their ISE degree in 2007. They offered this degree for a number of years, but never had much student interest (less than 30 students). Their ISE degree was previously accredited, but because of the name, it was accredited under both the CAC and EAC of ABET. This was both expensive and time consuming. Furthermore, their ISE program had substantial overlap with their Computer Science, Software Engineering, and Computer Engineering programs. These factors led to their decision to discontinue the program. We are aware that other schools (i.e. John's Hopkins and NYU-Poly) offer a similar program, but only as a graduate degree (MS) program option.

4. CIP Code: The CIP code assigned by FHSU for this proposed degree does not appear to be the appropriate one for an engineering degree.



WICHITA STATE
UNIVERSITY

ACADEMIC AFFAIRS
AND RESEARCH

Office of the Provost
and Vice President

COPY

January 25, 2011

Lawrence Gould
Provost
Fort Hays State University
600 Park
Hays, KS 67601-4099

Dear Larry,

Thank you for the thoughtful discussion during the COCAO meeting on Wednesday, January 19, 2011 regarding the Bachelor of Science in Information Systems Engineering, FHSU is proposing. As I indicated, we have serious reservations about this program. I am providing you with a summary of our observations regarding your proposal.

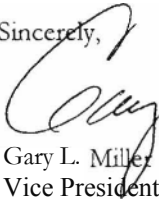
- It is our understanding that engineering and information system programs will be housed at the three Kansas research universities. Your statement during the meeting that, in making this proposal, FHSU is requesting an exemption to that understanding is unsettling in these difficult economic times. We believe that the most efficient way to meet the engineering needs in the state is to continue the growth of the three ABET accredited engineering programs.
- WSU (along with KU and KSU) has ABET accredited degree programs in computer engineering and computer science. There is significant overlap with these degrees in your proposal.
- Engineering programs are supported by extensive and costly infrastructure which includes specialized teaching and research faculty (required for accreditation). This infrastructure already exists at the research universities.
- We have extensive experience in working with potential employers of engineering graduates. Employers needing expertise in information systems hire graduates with degrees in information systems or computer engineering/computer science. To our knowledge, there is no accredited discipline in "information systems engineering." In fact, in order to be accredited by ABET, the proposed degree program would need to satisfy both the Computing Accreditation Commission and the Engineering Accreditation Commission Criteria as it combines "information systems" with "engineering."
- An essential piece of a successful engineering program is placement of students in the workplace for hands-on experience. WSU already has highly developed programs to accomplish this. For example:
 - WSU houses the only higher education-based Cisco Technical Research Center in the world. This facility provides student experiences in networking, computer storage, and information systems.
 - WSU heads-up the most comprehensive K-12 STEM effort in the state through the "Project Lead the Way" program funded by Knight Foundation/WIRED grants.

- The WSU Work-Based Learning Program is one of the largest in the region and has extensive experience placing undergraduate engineers.
 - Our close partnership with Wichita Area Technical College at the National Center for Aviation Teaching is designed to specifically enhance engineering training in Kansas.
 - The three research campuses with similar degree programs provide ample opportunities for graduate placement in the Wichita and Kansas City metropolitan job markets, where most of the employers listed in your proposal are located.
- Funding for the program is to come from request for an allocation of state funds. Such a request for funds for a program with substantial overlap could draw precious funds from three highly productive engineering programs already existing in the state at a time of great resource limitation. A better use of funds would be to enhance the existing programs in the state, and consider offering those programs in a collaborative fashion with FHSU.
 - The CIP code 15.1299 in the proposal refers to a degree program in Computer Engineering Technology. Engineering degrees are included with classification numbers starting with code 14.

I look forward to working with you to support your programs without promoting another engineering program in Kansas. One possible approach is to consider your program an interdisciplinary computer science track outside the framework of engineering.

I appreciate your consideration of these comments.

Sincerely,



Gary L. Miller, Provost
Vice President for Academic Affairs and Research

GLM/lcm

C: Don Beggs
Gary Alexander
Jeff Vitter
April Mason
Zulma Toro-Ramos
Rick Muma
Fritz Hemans

Fort Hays State University

February 10, 2011

Dr. Gary Alexander
Vice-President for Academic Affairs
Kansas Board of Regents
1000 SW Jackson Street, Suite 520
Topeka, KS 6612-1368

Re: Objections and Responses to the Fort Hays State University Information Systems Engineering Proposed Bachelors of Science Degree

Dear Dr. Alexander,

I have tried to capture the objections posed by members of the Council of Chief Academic Officers to the Fort Hays State University Information Systems Engineering Proposed Bachelors of Science Degree and have provided comprehensive responses to each question or concern. Please see these below.

1. Duplication

Response: Dr. Jeffrey Vitter from the University of Kansas's letter summarizes Fort Hays State University's belief regarding the argument of program duplication in stating:

The Information Systems Engineering degree is found in only a few schools in the US as a graduate program of studies. After a fairly extensive search of the web, we found no undergraduate programs in Information Systems Engineering, and that was surprising to us. This program should not be confused with Information Systems, which is an academic program normally found in business schools.

The proposed program would be unique to Kansas and the Great Plains Region.

2. Support Monies

With the abandonment of the Kansas Commitment, the new initiative is the Engineering Expansion Program funded by \$1 million is to be used for existing programs that actually need expansion. Adding a new program doesn't make sense and cuts the pie four ways.

Response: Fort Hays State University is not seeking funding from the Engineering Expansion Program. Fort Hays State University is not seeking to build Civil, Mechanical, Manufacturing, Nuclear, Aeronautical, Chemical, or other facility and laboratory expensive engineering programs. It is proposing a program that aligns with the university's unique state-wide mission in the integration of telecommunications and computing. This program builds on FHSU's

nationally recognized excellence in Telecommunications and Information Assurance. Information Systems Engineering is designed to grow the economic pie as it is aligned with important needs in the Kansas and national economy.

3. Proposal Budget

The current budget in the proposal is outdated and depends on the original \$750,000 in the Kansas commitment.

Response: The Information Systems Engineering program leverages current Fort Hays State University programs including Pre-Engineering, Computer Science, Mathematics, Computer Networking, and Information Assurance. FHSU's pre-engineering program supports other engineering programs –both in-state and beyond. Students can currently take the first two years of an engineering degree at FHSU and subsequently transfer to an existing engineering program. New students entering the program can be accommodated in current pre-engineering classes for the next two years. This comment is correct that the proposed budget is outdated. Growth and ramp-up will have to be more gradual and more dependent upon private sector support, tuition, and reallocation of FHSU monies instead of launching a more aggressive full-bore program immediately. Information Systems Engineering relies most heavily on intellectual capabilities and relatively inexpensive computing, networking, serving, and information assurance tools.

As noted in the program proposal, the FHSU Information Networking and Telecommunications, Information Assurance program, and other information science programs have benefited from substantial and consistent private sector support. Since the program proposal was submitted, Juniper Networks has approached FHSU. FHSU is the only one of the seven Kansas universities to initiate a new Juniper partnership for education and research. This supplements current academic partnerships with Cisco Systems, Oracle, NDG, Rural Telephone/Nex-Tech and other organizations. The Department of Informatics' Computer Networking and Information Assurance programs have received more than \$2 million dollars worth of equipment and software from industry partners over the last decade. The largest donations occurred in 2008 with more than \$1.28 million in equipment donated in a single year as Fort Hays State ramped up its Information Assurance program. Key donors to that program have included Cisco Systems, Oracle, Juniper, Nortel, Adobe, Nex-Tech, and Sprint. FHSU will continue to pursue private sector support.

4. Alignment/consistency

The degree claims to be built on a networking architecture concept, but the language of networking is not reinforced throughout the proposal.

Response: Fort Hays State University has unique intellectual and program assets in the area of networking architecture and intends for networking to be the fundamental asset in developing a unique, focused, and world class engineering program. If the language needs reinforcement to convey the networking emphasis, FHSU can make that change.

5. Market

The proposal lacks evidence that there is clear student demand for this type of degree. In fact, according to WSU, there is evidence of a declining demand for this type of engineer.

Response: National analyses, Kansas data, and Fort Hays State University experience seem to contravene the WSU claim. *The Bureau of Labor Statistics, Occupational Handbook, 2010-2011 Edition*, Bureau of Labor Statistics (2010) projects that the second fastest growing category of occupations is “Network Systems and Data Communications Analysts.” Job growth in this category is projected to increase 53% between 2008 and 2018. This is projected to be the 2nd fastest growing occupational category in United States over the time period. The median 2008 wages for this category are \$71,100. 155,800 new jobs are projected to be created in this occupation category. A closely related occupational category – “Software Engineers, Applications” is projected to have a 34% increase in jobs resulting in an increase of 175,100 new positions with an average salary of \$85,430. This category is projected by the Bureau of Labor Statistics to be the 15th fastest growing occupational category. Both categories require a bachelor degree.

The Bureau of Labor Statistics specifically states:

Two of the fastest growing detailed occupations are in the computer specialist occupational group. Network systems and data communications analysts are projected to be the second-fastest growing occupation in the economy. Demand for these workers will increase as organizations continue to upgrade their information technology capacity and incorporate the newest technologies. The growing reliance on wireless networks will result in a need for more network systems and data communications analysts as well. Computer applications software engineers also are expected to grow rapidly from 2008 to 2018. Expanding Internet technologies have spurred demand for these workers, who can develop Internet, intranet, and Web applications. Bureau of Labor Statistics (2010)

The Kansas Department of Labor similarly projects robust demand for these two occupational categories. In its projections for employment growth between 2006-2016, it projects 54.7% growth for “Network Systems and Data Communication Analysts” with aggregate growth of 1096 jobs. A similar category of “Network and Computer Systems Administrators” is projected to have 34.9% growth with aggregate growth of 1421 jobs. “Computer Software Engineers, Applications” are projected to have 44.7% growth with aggregate growth of 1,191 jobs. “Computer Software Engineers, Systems Software” are projected to have 35.3% growth with aggregate growth of 772 jobs. All of these positions are described as requiring a Bachelor’s degree.

During the last week of January, 2011, the *Hays Daily News* carried classified advertisements from three different organizations seeking network administrators. These included Nex-Tech, Golden Belt Telephone, and Scott County Hospital. Information Systems Engineers are typically employed at a higher strata than network administration; however, these advertisements illustrate the demand that exists even in rural Kansas for network architecture and engineering.

The employers listed in the program proposal are employers who currently hire students from FHSU information science programs: Computer Science, Management Information Systems, and Information Networking and Telecommunications. Employers have indicated that the value of being able to employ Information Systems Engineers who can design from a system perspective – the overall information technology infrastructure will be an important asset to them.

6. CIP Code

There is no CIP code for this degree. The CIP Code is actually a computer (not information) engineering identifier.

Response: Agreed. There is no CIP code that exactly fits this degree. New and innovative programs sometimes develop before an accounting/identification statement like CIP Codes expand. Fort Hays State University attempted to submit a CIP Code as closely aligned as possible. If this addresses the objection, perhaps a better code at this time would be CIP 14.1004 Telecommunications Engineering:

Definition: A program that prepares individuals to apply mathematical and scientific principles to the design, development, and maintenance of telecommunications technology, networks, and systems. Includes instruction in telecommunications, computer networking, communications networks and systems, signals, circuits, fiber optics, and wireless systems and technology.

7. Employability

Engineering students do not get hired unless programs are ABET licensed/qualified. The plan for ABET qualification for this degree is unclear because there is no ABET category for this type of degree.

Response: This curriculum is designed to meet ABET standards for accrediting Computing Programs and ABET standards for accrediting “Electrical, Computer, and Other Similarly Named Engineering Programs.” We respect feedback such as that received from the University of Kansas. In accord with KU’s observation, FHSU is willing to substitute additional engineering courses and to make other necessary modifications. It should be noted, however, that current FHSU Information Networking and Telecommunications students are frequently hired as engineers without graduating from an engineering program – much less an accredited engineering program. One of these graduates recently became Cargill’s youngest Senior IT Manager in the company’s history. FHSU appreciates the value of ABET accreditation. Thus, the proposed program will be submitted for accreditation as quickly as it is eligible in order to provide quality assurance and program recognition. But obviously, programs with a specialized accreditation opportunity have to approved by the Regents before they can seek accreditation.

8. If you don't receive any of the state initiative money, how does FHSU expect to support this program?

Response: See the FHSU responses to objections 2 and 3.

9. WSU emphasizes the need for engineering students to have hands on experiences and points to WSU initiatives.

Response: FHSU applauds WSU's efforts and is pleased to point out that on a given academic year, FHSU has students from its information sciences programs interning at Nex-Tech (usually ten or more), Eagle Communications, Hays Medical Center, Pioneer Communications, Sunflower Telephone, Cerner, Koch Industries, Cargill, Apple, Cisco Systems (Research Triangle, Denton, Texas, and San Jose, California), NDG, Zappos.com, Spirit, and in a variety of other organizations. The proposed Information Systems Engineering program will mandate that all of its students participate in an internship as a condition of graduation. With the richness of FHSU industry partnerships, internship placement should not be a difficulty.

We appreciate the thoughtful feedback provided by the other Kansas institutions with history and experience in this academic programming area. As the three institutions with existing engineering programs seek to make a case to public policy makers that the state lacks engineers and engineering capacity, FHSU believes that initiation of a unique program that does not directly compete with any existing program and which fits a developing industry niche in an underserved region is a very compatible initiative. More opportunities for Kansas citizens to choose and gain a credential in engineering seems like a logical and politically appealing response. In other words, an accessible and affordable addition to the state's engineering program menu in central and western Kansas should broaden public and industry support for engineering in all of Kansas.

Sincerely,

Larry Gould
Provost



TO: Dr. Gary Alexander

FROM: Tes Mehring *TM*
Provost and Vice President for Academic Affairs & Student Life

RE: Bachelor of Integrated Studies Name Change

The College of Liberal Arts and Sciences at Emporia State University wishes to change the name of the Bachelor of Integrated Studies degree to the Bachelor of Interdisciplinary Studies.

The name change is consistent with titles of similar degrees at other institutions. It also more nearly describes the nature of the program – developing individual degree programs from within a group of departments, according to the needs, interests, and abilities of the student. The change also more appropriately indicates the degree is interdisciplinary in nature, and removes confusion regarding the meaning of “integrated” studies.

Please add this request to the next COCAO agenda.

University of Kansas

Sent on behalf of Barbara Romzek, Interim Senior Vice Provost for Academic Affairs, University of Kansas

Gary Alexander, Vice President for Academic Affairs
Kansas Board of Regents

Dear Gary,

On behalf of the University of Kansas, I request approval to change the name of the Special Studies graduate degree program to Interdisciplinary Studies. This program is available to students enrolled in a traditional disciplinary degree program who determine that their academic and research interests are interdisciplinary and cannot be met through the confines of the discipline. This proposal has been endorsed by the Executive Council of Graduate Faculty.

I hope that you will find this request in order so that the proposal can be submitted to COCAO at its March meeting. My understanding is that this proposal requires the approval of COCAO, and the President/CEO of the Board of Regents.

Jenny Mehmedovic (jmehmedo@ku.edu) or I can provide additional information if needed. Thank you for your help.

Sincerely,

Dr. Barbara S. Romzek
Interim Senior Vice Provost for Academic Affairs
and Professor of Public Administration

I. Basic Program Information- Degree Consolidation Proposal

A.1. Proposing Institution: Aviation Department, College of Technology and Aviation, Kansas State University at Salina.

2. Title of Proposed Program: Aeronautical Technology

3. Degree to be Offered: Bachelor of Science

4. Anticipated Date of Implementation: Fall 2011

5. Responsible Department: Aviation

6. Proposed CIP Code: 49.0101 – Aeronautics/Aviation/Aerospace Science and Technology, General- a program that focuses on the general study of aviation and the aviation industry, including in-flight and ground support operations. Includes instruction in the technical, business, and general aspects of air transportation systems.

B. Program Proposal Narrative

Program Need and Student Characteristics: This consolidation initiative is being undertaken for two basic reasons; a) increased efficiency and b) increased technical career relevance for students. Several similarities exist among the two current department baccalaureate degree curricula, indicating these programs could be combined into a structure consisting of a common curriculum with technical options. The proposed degree program contains threads of emphasis in mathematics, communications, science, business and aviation that support multiple program options.

The proposed consolidation will encourage larger and more appropriate class sizes, will reduce duplication and overlap of course content, and will encourage better utilization of faculty, laboratory space, and other resources. In addition to the combination of undergraduate degree programs, this proposal may result in the eventual dissolution of the recent certificate programs in the areas of Air Traffic Control, Airport Management, Airframe and Powerplant and Unmanned Aerial Systems (UAS) as these options will fill that existing need.

Further, this proposal is in response to a call from students, industry and our external constituencies to broaden our reach into wider career fields in the field of aviation. This proposed direction was unanimously approved by the aviation advisory board in the April 2010 meeting.

While our existing degree programs have served us well for many years, we have, in effect, been limiting the career training opportunities of our students wanting to work in the field of aviation to two areas ; a) being an aircraft pilot, or b) being an aircraft mechanic. It is fortuitous that our two existing degrees provide excellent foundational core courses in aeronautics necessary for a variety of other aviation career fields.

An added benefit of this consolidation would be the ability to quickly respond to the needs of a rapidly changing industry given the industry-driven, technical focus of our department. Program options can be added with relative ease which will help our department respond in a timely manner to industry needs for curricula focusing on emerging fields of technology.

By restructuring the baccalaureate degrees into a single degree, the Aviation Department can preclude potential concerns about low enrollment numbers and graduation rates in a given degree program which may arise in the future should enrollments decline however this proposal provides a robust structure and great incentive for future enrollment growth. It should also be noted that our two existing bachelor's programs, AVMB and PPILB, both confer an undergraduate degree in "Aeronautical Technology", thus, in essence, our department is already the custodian of one common degree with two options which is the formalized proposal contained herein (with added options).

It is also important to point out that our undergraduate degree in professional flight, PPILB- our largest degree program, remains largely unchanged with the exception of some minor course modifications already planned. This consolidation also presents an opportunity to mend a glaring deficiency in our undergraduate degree program in aviation maintenance technology - AVMB. Currently under this plan of study, no general education courses are taken by students until year three of their study, to include any Math or English. This often presents challenges in that these basic skills, so necessary for students to persist in college, are lacking in our third-year students which can cause them to be underprepared academically for success in much of their other coursework. This proposal provides a solution to that situation. Further, as we pursue accreditation in the future for our proposed Aviation Maintenance Management degree, this proposed program moves us closer to those requirements.

1. Centrality to the mission of Kansas State University: Given that this is a consolidation of two existing degrees into one degree and the fact that the proposed options remain within the area of technical aviation education and training, the centrality to the mission of Kansas State University of preparing students for professional employment remains unchanged over what is currently in place.

It is important to note that this proposal is aimed at combining the two existing baccalaureate degrees into one and extending program options within that combined degree. The most appropriate mission statement would be the department's mission statement, which is: "To provide quality training that emphasizes education, technical competence, maturity, and responsibility to society."

The proposed degree directly supports both the current and the revised mission statement for the department: "To provide future aviation professionals a quality aviation education to prepare them for careers as aviation leaders"

2. Student Demand for the proposed program: Recent student surveys (2008) indicated a desire for the department to broaden the opportunities to study in the field of aviation and the degree options included in this proposal were the ones indicated in the surveys with the exception of the avionics option, demand for which was demonstrated in a separate survey of potential employers (2009).

Each student in the department was surveyed electronically in the fall of 2008 for the survey and the response rate was 30%. 100% of the students indicated they would like to see the number of degree offerings by the department become more diverse. In conjunction with the Technology Management Degree, with this new reorganization the aviation department would offer four of the top five student choices. These preferences were reviewed and confirmed by the faculty and our industry advisory council.

Due to the fact that this is a degree consolidation, and students who desire no change in their existing degree program will see little to no change, demand for this new program will, at a minimum, remain unchanged, and, as indicated in the surveys, will likely increase.

3. Demand for proposed program graduates: In late 2009 the secretary general of the International Civil Aviation Organization, Raymond Benjamin cited the shortage of skilled workers in the aviation industry as one of the global aviation industry's biggest challenges. Numerous articles in recent months, as the economy has improved, have echoed this same sentiment. In June of this year Cessna Aircraft Company CEO Jack Pelton mentioned the coming shortage of pilots (and subsequently other aviation personnel) as one of the industry's largest threats. All sources indicate that as demand for air travel improves, and the pilot supply dwindles (new pilot training starts are down 15% over the last decade and new mechanic starts are down 40%), aviation is a wide-open career field in the coming years.

We anticipate that in three years we will have 200 - 300 students enrolled in one or more of the degree options. Graduates will have opportunities as aircraft pilots, aircraft mechanics, avionics technicians, UAS operators, air traffic controllers, airport managers and positions leading up to those positions.

4. Comparative Advantages: Our existing degree program has been, and will likely continue to be, the only baccalaureate degree producing aviation program at K-State and within the State of Kansas which is why aviation education makes sense at this location (K-State campus in Salina). We know of no other KBOR institution which would be able to jointly offer this degree program or compete with this program. Most surrounding states have at least one aviation undergraduate program (Oklahoma has 3 non-profit programs) which primarily focus on pilot training and aviation management. Two other universities in surrounding states have the Air Traffic Control degree (stand-alone), Metropolitan State College - Denver, and Oklahoma University. Our mix of options branching from one common core is unique in this region.

Again, this degree will be offered on the K-State at Salina campus. It could, of course, be expanded to other locations as needed after gaining appropriate levels of approval.

5. Student Characteristics: In that this is a consolidation of an existing degree the student characteristics are unlikely to experience any change other than bringing in students with a greater diversity of career interests. The overall diversity of our student population is likely to increase given that the traditional financial barriers to aviation flight education will be lowered. It is a fact that our existing professional pilot degree program, though affordable by comparative standards, remains one of the most expensive undergraduate degree programs offered within the KBOR system out of necessity. This remains a barrier for many students who desire to study aviation. Thus, *unless* one of limited financial means has an interest in being an aircraft

mechanic, aviation education at the undergraduate level remains a challenge in the State of Kansas under the existing structure. The interaction of students with differing career interests and backgrounds should prove to be a positive addition to our undergraduate experience.

While formal internships are not required by the degree program, each option in the degree will have opportunities for student internships. The proposed curriculum would utilize internship credit hours in the "Aviation Elective" category, just as they do presently. Students in the current professional pilot and aviation maintenance degree programs have multiple internship opportunities and those opportunities will undoubtedly continue and expand.

6. Program Faculty- Using existing faculty (both full and part-time) we have the necessary experience to deliver the core courses and all degree options proposed, due both to the commonality of courses offered, and to the varied experience level of our faculty. We do not anticipate the immediate need to hire any new full-time faculty members until program enrollments necessitate faculty growth.

The department employs 15 regular aviation faculty members and numerous credentialed staff to assist in course delivery and since this is a consolidation proposal, all faculty will be devoted to supporting this one degree program. Two faculty have doctorates (with appropriate industry certifications), two hold only baccalaureate degrees (with appropriate industry certifications), and the remaining 11 hold master's degrees (with appropriate industry certifications). One individual expects to complete a PhD within the next two years.

While we do not presently use graduate assistants, as the Professional Master's of Technology degree comes into fruition there may be opportunities to employ these students as graduate teaching assistants in support of this program; however, at this time none are planned. These students will be employed according to their technical and interpersonal strengths and will be monitored closely.

7. Academic Support: Initially the academic support required for the proposed program should not change as the majority of our students will continue to pursue professional pilot, and aviation maintenance degree options as before. As enrollments increase in coming years due to the enhanced opportunities for study created, there may be an added strain on the existing support structure however the additional revenue generated as a result may provide some relief. Library support for these increased opportunities involve accommodating the added holdings, periodicals, and journals relevant to the proposed degree options however with the increased utilization of electronic resources the additional burden will be lightened.
8. Facilities: Given the aim of this proposal is to increase efficiencies; we see opportunities for more efficient use of existing facilities rather than the need for new facilities. Given the course commonality, students in multiple degree options will be able to share the same classes.
9. New Equipment: Our recent build-up of equipment in the areas of UAS and Avionics (in support of the existing certificate programs) will provide for the necessary equipment for these options. Our existing equipment will be sufficient for the Aviation Maintenance and Professional Pilot options. The Airport Management option will not require equipment and no equipment will be initially required for the Air Traffic Control option. As enrollment increases within the ATC option a potential enhancement would be the addition of an Air Traffic Control simulator which will require one dedicated classroom however this is not required.

Accreditation and Assessment Considerations

We intend to maintain the Aviation Accreditation Board International (AABI) accreditation status of the existing Professional Pilot program through the PPIL option track. Note that the existing Aviation Maintenance degree program is not academically accredited although the curriculum is approved by the Federal Aviation Administration. However, in the next self-study cycle the Aviation Department leadership intends to explore accreditation opportunity for as many options as possible with this more simplified approach branching from a core curriculum.

Existing assessment rubrics from the respective certificate and degree programs will be modified as needed and incorporated into this consolidated degree. The Aviation Accreditation Board International (AABI) currently accredits the Professional Pilot (PPILB) program in our department although multiple proposed options would be eligible for accreditation review:

For more details on AABI accreditation criteria see: <http://www.aabi.aero>

CONTACT: Kurt Barnhart, Department Head, Aviation Department
Phone 826-2972, Fax 826-2934
kurtb@ksu.edu

IMPACT: No departments outside of the College of Technology and Aviation will be affected by the proposed changes.

EFFECTIVE DATE: Fall 2011

DEGREE PROGRAM CHANGES:

This proposed consolidation of the degree programs in the Aviation Department would reduce the number of programs offered by the department to three certificate programs, two associate degrees and one baccalaureate degree. The new baccalaureate degree will encompass multiple options, as listed below:

DROP:

Bachelor of Science Degree Programs in:

- Aeronautical Technology Aviation Maintenance (AVMB)
- Aeronautical Technology Professional Pilot (PPILB)

Add:

Bachelor of Science Degree Program in:

- Aeronautical Technology (BATN)

with options in:

- Air Traffic Control Management (BATN-ATC)
- Avionics Systems and Management (BATN-AVIO)
- Airport Management (BATN-APMG)
- Aviation Maintenance Management (BATN-AMAP)
- Professional Pilot (BATN-PPILB)
- Unmanned Aerial Systems (BATN-UAS)

RATIONALE:

This action is part of a comprehensive proposal to consolidate the degree programs in the Aviation Department into one bachelor's degree program, as described in this document.

Kansas Board of Regents

APPLICATION FOR APPROVAL OF NEW EMPHASIS

PITTSBURG STATE UNIVERSITY
(NAME OF INSTITUTION)

1701 South Broadway – Pittsburg, KS 66762
(ADDRESS)

620-235-4113 (Office of the Provost – PSU)
(TELEPHONE)

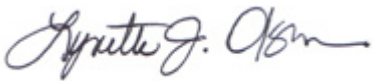
NEW Emphasis:

Electronic Embedded Systems Emphasis
within BSET Electronics Engineering Technology Major (CIP: 15.0399)
(Title and CIP)

New

Derived from Existing Program

February 2011 _____
(DATE SUBMITTED)



(Signature of Vice-President/or Provost)

**PROPOSAL FOR NEW EMPHASIS
Kansas Board of Regents**

Submitted by: PITTSBURG STATE UNIVERSITY

College of: Technology

Division of: Office of the Provost - PSU

I. Indicate major in which concentration will be located:

Bachelor of Science in Engineering Technology
in Electronics Engineering Technology
(BSET/EET – CIP: 15.0399)

II. Give the name and describe the purpose of the proposed emphasis:

Name: Electronic Embedded Systems

Description of Purpose/Rationale

Electronic Embedded Systems refers to the inclusion of artificial intelligence into product design. The usual implementation of embedded systems is through use of microcontrollers or field programmable gate arrays. The basics for this emphasis area already exist in the EET curriculum. By expanding the existing basics with two new follow-on courses focusing upon embedded controllers and embedded gate arrays, a competitive new focus is added to the degree. Moreover, with a relatively minor curriculum adjustment and using existing resources, the program can provide a new capability supporting the upgrades of regional industry at a time when such upgrades are critical to the state of Kansas' economic rebound.

III. Provide curriculum for the major and indicate courses required for each emphasis:

Bachelor of Science in Engineering Technology
in Electronics Engineering Technology(BSET/EET)
 Name of Major

	Course Name & Number	Credit Hours
Core Courses:	EET 100 Prolog to Electronics	2
	EET 144 D.C. Circuit Analysis Methods	3
	EET 244 Logic Circuits	3
	EET 245 Electronic Devices & Circuits	3
	EET 246 AC Circuit Analysis Methods	3
	EET 299 Electronics Core Exam	1
	EET 344 Microcomputer Systems	3
	EET 349 Linear Integrated Circuits	3
	EET 447 Electronic Communication Circuits	3
	EET 449 Advanced Logic Design	3
	EET 540 Electronic Design Proposal	3
	EET 546 Electronic Controls	3
	EET 640 Application Design Problems	2
	EET 642 Electronic Technology Seminar	1
Electives:	At least one 12 hour emphasis area completed from 4 existing EET emphasis elections	12
Research:	_____	_____
Practica:	Note: EET courses all include lab components embedded	_____
	Total:	48

Electronic Embedded Systems Emphasis
(Name of New Emphasis)

	Course Name & Number	Credit Hours
New Emphasis:	EET 449 Embedded Programmable Logic Devices	____3____
	EET 549 Embedded Microcontrollers	____3____
	EET 647 Embedded Digital Signal Processing*	____3____
	One additional elective course from an existing Electronics Emphasis area	____3____
	Total:	____12____

IV. Faculty resources:

- A. Number of FTE faculty who teach in the major, including all concentrations/emphasis:
 ____4____
- B. Rank of faculty: Instructors: ____; Assistant Professors: _1_;
 Associate Professors: _2_; Professors: _1_; GTAs: _1_
- C. Preparation of faculty (indicate level of degrees): Bachelors._____;
 Masters __2__ ; Doctors __2__
- D. Explain other instructional responsibilities of faculty. (e.g. list service courses in school or for other schools/majors):

One Associate Professor has 3 hours per semester of service load to the College of Technology. Remaining instructional loads are within the EET program.

Why a Library Consortium Makes Sense

Brief Background

In years past, KU Libraries, with 50% funding support from participating libraries (aka Regional Libraries Development Council), has provided 1FTE to negotiate licensed databases on behalf of the RLDC, an academic based “buying club” where participating members could opt out at any time. In 2009, that person resigned and the position has not been filled permanently. Since then, KU was asked to continue to provide support for renewal/maintenance for existing licensed databases. With .5FTE to support this effort, KU no longer negotiates any new database licenses for the group. The net result is duplication of effort across the state as academic libraries handle/negotiate their own licenses (often through other out of state library consortiums to leverage costs) and each institution’s general counsel review license agreements.

In November 2009, the Council of Deans and Directors of Libraries (CODDL) sent to the Council of Chief Academic Officers (COCAO) the document “Towards a Better Kansas Library Consortia,” with the following request:

That the Kansas Board of Regents(KBOR) recognize a system-wide library consortium as the authorized entity to collaboratively acquire, organize, preserve and expand access to information resources for the Kansas academic community. This consortium shall be comprised of CODDL, the Two-Year Library Directors Council (TYLDC) the State Library of Kansas, Kan-Ed and the KBOR Vice-President for Academic Affairs.

Benefits

- Economically, a stronger consortia model, as demonstrated in other states, will allow for greater efficiencies.
- Negotiating license agreements, pricing and access as a consortium will achieve cost efficiencies.
- A stronger consortia model will allow for greater statewide information sharing and support of workforce and economic development.
- As a consortium, initiatives in programs such as engineering, agriculture and health related fields that are taught at multiple institutions will be supported to ensure that all students and faculty in said programs have equitable access to resources.
- As a consortium the research and work of faculty and students via a consortium repository will highlight the return on investment to Kansans.
- As a consortium access to all the information resources in Kansas will be retained and preserved for all Kansans.
- As a consortium libraries can share library instruction material centrally.
- Transfer students will benefit from familiarity with and use of library databases in a consortial environment.
- Librarians and staff in a consortium benefit from collaborating and sharing expertise.
- Cooperative collection development and storage is a growing trend across the nation.

A consortium would introduce significant efficiencies compared to the current system because it negates the need for individual institutional bargaining and legal processes. This would place Kansas into the normative operating model that now exists between the majority of state library consortiums and library product vendors.

Selection of materials for purchase and oversight of the negotiation process would remain with the institutions managed according to an agreed upon process.

Examples of duplication and inefficient use of staffing resources in recent projects

- In a recent microform weeding project, each CODDL institution invested an average of 72 staff hours staff to identify duplication across the universities' microform holdings. Total cost for managing this project: \$17,108.12 (@30.77/hour)
- A recent survey of e-journal packages shows several CODDL institutions subscribing to similar packages, individually. Total cost for identifying overlap of subscriptions: \$984.64 (32 hours @30.77/hour)

Desired Outcomes of COCAO meeting

- Provide strong advocacy for the creation of a formal Kansas library consortium with dedicated staff to collaborate with academic institutions in selecting and negotiating information resources.
- Have a clearer understanding of the benefits (beyond licensed databases) of an academic library consortium as a shared resource in the state of Kansas.