

**KANSAS BOARD OF REGENTS  
ACADEMIC AFFAIRS STANDING COMMITTEE**

**CONFERENCE CALL AGENDA**

**May 2, 2017  
11:00 am**

**CONFERENCE CALL INFORMATION**

**DIAL: 866.620.7326**

**CONFERENCE CODE: 1366296630**

- |             |   |                         |              |
|-------------|---|-------------------------|--------------|
| <b>I.</b>   | <b>Call To Order</b>  | Regent Van Etten, Chair |              |
|             | A. <i>Approve Minutes</i>   |                         |              |
|             | April 4, 2017, Meeting  |                         | <i>p. 2</i>  |
| <b>II.</b>  | <b>Agenda Planning</b>  |                         |              |
|             | A. <i>Consent Agenda</i>  |                         |              |
|             | 1. Act on Request for New Certificate of Approval with Degree Granting Authority          | Jacqueline Johnson      | <i>p. 4</i>  |
|             | a. Bryan University   |                         |              |
|             | b. Nazarene Bible College   |                         |              |
|             | 2. Act on Request for Approval for Degree and Certificate Programs                        | April Henry             | <i>p. 6</i>  |
|             | a. Barton County Community College<br>- Scale Technician Technical Certificate            |                         |              |
|             | b. Wichita Area Technical College<br>- Emergency Medical Technician Technical Certificate |                         |              |
|             | 3. Act on Request for Approval for a Bachelor of Science in Biomedical Engineering (BME)  | Max Fridell             | <i>p. 8</i>  |
| <b>III.</b> | <b>Other Matters</b>  |                         |              |
|             | A. Midwest Student Exchange Program Policy  | Jean Redeker            | <i>p. 15</i> |
| <b>IV.</b>  | <b>Adjournment</b>  |                         |              |

**Board Academic Affairs Standing Committee  
Meeting Schedule**

AGENDA MATERIALS DUE	MEETING DATES		TIME
April 17, 2017	May 2, 2017	Conference Call	11:00 am
April 26, 2017	May 17, 2017	Face to Face	10:30 am
May 1, 2017	May 30, 2017	Conference Call	11:00 am
May 24, 2017	June 14, 2017	Face to Face	10:30 am

**Kansas Board of Regents  
Board Academic Affairs Standing Committee**

**Tuesday April 4, 2017  
MINUTES**

The Board Academic Affairs Standing Committee of the Kansas Board of Regents met by conference call at 11:00 a.m. on Tuesday, April 4, 2017.

**In Attendance:**

Members:	Regent Helen Van Etten Regent Shane Bangerter	Regent Zoe Newton Regent Daniel Thomas	Regent Dave Murfin
Staff:	Jean Redeker Karla Wiscombe	Scott Smathers April Henry	Renee Burlingham Julene Miller
Institutions Represented:	WSU PSU	NWKTC KU	ESU KUMC

Meeting called to order at 11:00 a.m.

**I. Approve March 15, 2017 Minutes**

Regent Thomas moved, with the second of Regent Bangerter, that the March 15, 2017 minutes as written be approved. The motion carried.

**II. Agenda Planning**

**A. Consent Agenda**

*Request for Approval for a Master of Science in Homeland Security: Law and Policy at University of Kansas*

Max Fridell presented the request for approval for a Master of Science in Homeland Security: Law and Policy from the University of Kansas. The Council of Chief Academic Officers and the Council of Presidents have reviewed and approved this proposal.

After discussion, Regent Thomas moved, with the second of Regent Newton, to place the Request for Approval for University of Kansas to offer a Master of Science in Homeland Security: Law and Policy on the Board's April 2017 agenda. The motion carried.

*Requests for Approval for Degree and Certificate Program*

April Henry presented the requests for approval for the following Degree and Certificate Programs:

- Hutchinson Community College to offer an Associate of Applied Science degree in Pharmacy Technology
- Hutchinson Community College to offer an Associate of Applied Science degree in Surgical Technology
- Northwest Kansas Technical College to offer an Associate of Applied Science degree in Occupational Therapy Assistant.

These programs addressed all criteria requested and was reviewed by the Technical Education Authority, and are recommended for approval.

Following discussion, Regent Newton moved, with the second of Regent Thomas, to place the Request for Approval for Hutchinson Community College to offer an Associate of Applied Science degree in Pharmacy Technology on the Board's April 2017 agenda. Motion carried.

Regent Murfin moved, with the second of Regent Newton, to place the Request for Approval for Hutchinson Community College to offer an Associate of Applied Science degree in Surgical Technology on the Board's April 2017 agenda. Motion carried.

Regent Newton moved, with the second of Regent Bangerter, to place the Request for Approval for Northwest Kansas Technical College to offer an Associate of Applied Science in Occupational Therapy Assistant on the Board's April 2017 agenda. Motion carried.

## **B. Discussion Agenda**

### *Receive Program Review Report*

Jean Redeker presented the Program Review Report for Academic Year 2015-2016. The universities are in the second year of an eight-year review cycle. Copies of individual campus reports are available at [http://www.kansasregents.org/academic\\_affairs/618-program-review-reports](http://www.kansasregents.org/academic_affairs/618-program-review-reports). Staff recommends acceptance of this report.

After discussion, Regent Bangerter moved, with the second of Regent Newton, to place the Program Review Report on the Board's April 2017 agenda.

There being no other business, the meeting was adjourned by unanimous consent at 11:26 a.m.

**Act on Request for New Certificate of Approval with Degree Granting Authority for the Following Institutions:**

- **Bryan University**
- **Nazarene Bible College**

**Summary and Staff Recommendation**

*Bryan University and Nazarene Bible College have applied for a Certificate of Approval to operate in Kansas and request approval for degree granting authority. After thorough review of staff qualifications, record keeping systems, coursework, materials, and online platforms, the institutions demonstrate they meet and comply with all statutorily imposed requirements. Staff recommends issuance of a Certificate of Approval with new degree granting authority.*

*May 2017*

**Summary of Institution Requirements**

The Private and Out-of-State Postsecondary Educational Institution Act (Act) requires private and out-of-state postsecondary educational institutions to obtain Certificates of Approval from the Kansas Board of Regents (Board) to lawfully “operate” in Kansas. This Act not only covers “brick and mortar” schools having a physical presence within Kansas, but also schools that offer or provide on-line distance education to Kansans who remain in Kansas while receiving that education.

To qualify for a Certificate of Approval, an institution operating in Kansas subject to the Act must meet the standards established by the Act. In reviewing schools to determine if they meet the statutory standards, Board staff requires and reviews substantial documentation and evidence presented to demonstrate compliance of the schools to ensure proper facilities (with site reviews for facilities when applicable), equipment, materials, and adequate space are available to meet the needs of the students. A recent financial statement, proof of accreditation, evidence of compliance with local, county, state and national safety codes, enrollment agreements, copies of advertisements, schedules of tuitions and fees, and refund policies are reviewed by Board staff. Schools are also required to provide descriptions of their programs and courses, clinical or externship contracts, instructor credentials, a statement of the objectives of the programs, and qualifications of administrators and owner information.

**Bryan University**

Bryan University was established in 1940 in central Los Angeles as a stenography school. In 2005, the University introduced new degree programs and a virtual online platform. Today, Bryan University’s home office in Tempe, AZ provides programs in the fields of healthcare, exercise science and legal studies and serves students online and on campuses in Los Angeles, CA; Sacramento, CA; Tempe, AZ; and Toronto, Canada.

Bryan University is transitioning from accreditation with the Accrediting Council for Independent Colleges and Schools to the Accrediting Commission of Career Schools and Colleges, a regional accrediting organization recognized by the U.S. Department of Education and the Council for Higher Education Accreditation. This accreditation, per K.S.A. 74-32,168 of the Kansas Private and Out-of-State Postsecondary Educational Institution Act, may be accepted as evidence of compliance with the statutory standards for approval.

**Degrees to be Delivered Online by Bryan University:**

- Associate of Occupational Science in Advanced Medical Billing and Coding and Electronic Records
- Associate of Occupational Sciences in Stenography
- Associate of Occupational Science in Health Information Technology
- Associate of Science in Advanced Personal Training and Exercise Science
- Bachelor of Science in Business Management and Analytics
- Bachelor of Science in Health Care Administration and Analytics
- Bachelor of Science in Paralegal Studies and Litigation Technologies
- Bachelor of Science in Professional Fitness Training and Exercise Science
- Master of Public Health

**Nazarene Bible College**

Nazarene Bible College was authorized by the General Assembly of the Church of the Nazarene in 1964. The college opened in September of 1967 in Colorado Springs, CO. Nazarene Bible College provides ministry preparation programs

at the certificate, associate and bachelor levels. The college will have administrative and enrollment offices in Lenexa, KS for its online programs.

Nazarene Bible College is accredited by the Higher Learning Commission (HLC), an accrediting organization recognized by the U.S. Department of Education and the Council for Higher Education Accreditation. This accreditation, per K.S.A. 74-32,168 of the Kansas Private and Out-of-State Postsecondary Educational Institution Act, may be accepted as evidence of compliance with the statutory standards for approval.

**Degrees to be Delivered Online by Nazarene Bible College:**

- Associate of Arts in Ministry
- Bachelor of Arts in Ministry

**Staff Recommendation:**

Staff recommends issuance of a Certificate of Approval with new degree granting authority for Bryan University and Nazarene Bible College.

# Act on Request for Approval of Community and Technical College Programs

## Summary and Staff Recommendation

*Each month community and technical colleges submit requests for the approval of new certificate and degree programs. The Board office received requests from Barton Community College to offer a technical certificate in Scale Technician; and from Wichita Area Technical College to offer a technical certificate in Emergency Medical Technician. The programs submitted addressed all criteria requested and were subject to the 14-day comment period required by policy. The programs were reviewed by the Technical Education Authority and recommended for approval.*

*05/02/2017*

## Background

Community and technical colleges submit requests for new certificate and degree programs each month utilizing forms approved by staff. Criteria addressed during the application process include, but are not limited to, the following:

- Program Description
- Demand for the Program
- Duplication of Existing Programs
- Faculty
- Costs and Funding
- Program Approval at the Institution Level

## Description of Proposed Programs:

**Barton Community College** requests approval for the following program:

- Scale Technician (15.0702) - Technical Certificate A/25 credit hours

The proposed Scale Technician program is a one-semester program to prepare individuals to install, maintain and certify scales for wholesale and retail uses. Upon successful completion of the program, students will be eligible to obtain the Kansas Department of Agriculture Sale Technician license.

Currently, Barton Community College holds the Kansas Department of Agriculture's contract for the state-mandated (K.S.A. 83-210) continuing education of Scale Technicians; however, no initial training program exists. Former Kansas Secretary of Agriculture, Allie Devine, noted the inconsistent training of technicians and approached Barton Community College to develop an initial training program. Thus, demand for this program has been driven primarily by state-wide industry demands.

The Kansas Department of Labor, Long-term Occupation Projections 2014-2024 indicate a state-wide growth rate of 8%, with an annual median wage of \$42,250 per year or about \$20.31 per hour. Per the state-wide projections, of the 6,236 jobs required in 2024, 464 will be new positions while 1,268 are replacement jobs.

Barton Community College plans to begin the proposed Scale Technician program in August of 2017. The college estimates the initial cost to deliver the proposed program at approximately \$50,920 (\$30,000 salaries; \$14,400 equipment, and \$6,520 tools/supplies). Two adjunct faculty members will be hired. The existing Executive Director of Workforce Training and Economic Development will provide oversight for the program. Existing space on campus will be utilized. Instructor costs will be paid for through student tuition. Equipment for the program has been purchased through the existing Kansas Department of Agriculture continuing education contract. Tools and supplies will be paid for through the general fund.

The proposed program was subject to the 14-day comment period from February 13, 2017 to March 2, 2017 during which no comments were received.

**Wichita Area Technical College** requests approval for the following program:

- Emergency Medical Technician (51.0904) – Technical Certificate A/19 credit hours

The proposed Emergency Medical Technician (EMT) technical certificate is a single-semester program to prepare individuals with the basic knowledge and skills necessary to stabilize and safely transport patients ranging from non-emergent and routine medical transports to life threatening emergencies. Upon successful completion of the program, students are eligible to sit for both the cognitive and psychomotor exams. The National Registry of Emergency Medical Technicians administers the EMT cognitive exam, while the Kansas Board of EMS administers the psychomotor exam.

Wichita Area Technical College conducted a student interest survey to determine potential student interest. Of the 490 students who completed the survey, 78 students identified EMT as a program of interest.

WATC provided a letter from the Sedgewick County Manager acknowledging the county has relied on neighboring community colleges to meet their EMS employment needs; however, continues to face a shortage of qualified personnel.

The Kansas Department of Labor, Long-term Occupation Projections 2014-2024 indicate a state-wide growth rate of 8%, with an annual median wage of \$27,480 per year or about \$13.21 per hour. Per the state-wide projections, of the 2,941 EMT jobs required in 2024, 212 will be new positions while 745 are replacement jobs.

Currently, seventeen institutions offer EMT training programs. According to the 2015 K-TIP data, as a system, 216 graduated with average wages ranging from \$24,930 to \$46,695.

WATC plans to begin the proposed EMT program in March of 2017. The college estimated the initial cost to deliver the proposed program at approximately \$226,238 (\$76,688 salaries; \$107,675 equipment, \$39,275 tools/supplies, \$1,200 instructional supplies, and \$1,400 accreditation fees). Upon approval, WATC will hire a Program Director/Instructor who will be responsible for the program oversight, program sustainability, accountability, reporting, program review, recruitment and placement. Existing space on campus will be utilized. All costs for the initial year of the EMT program will be funded through a \$2.25 million Title III grant awarded to WATC to expand healthcare programs.

The proposed program was subject to the 14-day comment period from January 13, 2017 to February 2, 2017 during which one co-written response was received from Butler Community College, Cowley County Community College and Hutchinson Community College.

#### **February 29, 2017 TEA Technical Program and Curriculum Committee discussion:**

In response to the concerns expressed by Butler Community College, Cowley Community College and Hutchinson Community College, the TEA Program and Curriculum Committee tabled action pending collaboration amongst the institutions in the Wichita area.

#### **March 6, 2017 Hutchinson Community College and Wichita Area Technical College meeting:**

Dr. Carter File, president of Hutchinson Community College (HCCC), Sheree Utash, president of Wichita Area Technical College (WATC), and Scott Smathers, Vice President for Workforce Develop for the Kansas Board of Regents met to discuss collaboration. As a result of the meeting, HCCC and WATC agreed to the following in regards to the EMT program:

- WATC will begin serving EMT training at Wichita South High School and Wichita West High School in August of 2017.
- WATC will begin serving EMT training Wichita North High School and Wichita Northeast Magnet High School in August of 2018.
- HCCC will maintain the EMT program for Maize High School indefinitely.
- HCCC and WATC will partner on the Paramedic and Fire Science programs.

#### **Recommendations:**

The new program request submitted by Barton Community College for a Technical Certificate A at 25 credit hours in Scale Technician has been reviewed by the Technical Education Authority and is recommended for approval.

The new program request submitted by Wichita Area Technical College for a Technical Certificate A at 19 credit hours in Emergency Medical Technician has been reviewed by the Technical Education Authority and is recommended for approval.

## New Degree Request – Kansas State University

<u>Criteria</u>	<u>Program Summary</u>
1. Program Identification	Bachelor of Science in Biomedical Engineering (BME) CIP Code: 14.0501
2. Academic Unit	College of Engineering, Department of Electrical and Computer Engineering
3. Program Description	<p>This undergraduate degree program is for students interested in the biomedical engineering industry, a field of study focused on improving human and animal health through use of knowledge in engineering, medicine, biology, and computer science. Students develop skills to analyze and design cyber-physical systems, plan and create software programs and hardware equipment to process data, and apply content to specific areas of scientific emphases.</p> <p>This program will be housed in the Engineering Building on the KSU campus. Approval is requested for Fall 2017 so that recruitment may occur during the 2017-2018 academic year; 2018-2019 will be the first year of implementation.</p>
4. Demand/Need for the Program	<p>The KSU College of Engineering Office of Recruitment notes that biomedical engineering has, in recent years, been the most requested degree program by prospective students and their families. According to the Bureau of Labor Statistics, the job outlook for biomedical engineers is projected to grow by over 20 percent from 2014 to 2024.<sup>1</sup> In the Hanover study, growth 13.2 percent is projected in the period of 2012 to 2022.<sup>2</sup> In comparison to all fifty states, biomedical engineers working in Kansas have the highest annual average wage of \$107,970.<sup>1</sup> Biomedical engineers often work in manufacturing, hospitals, research and entrepreneurship facilities, universities, and governmental agencies. Biomedical companies in the Midwest include those considered part of the Midwest Animal Health Corridor. The National Bio and Agro-defense Facility, KSU's veterinary medical and agricultural programs, and the Johnson Cancer Research Center will all likely provide unique training opportunities for KSU BME students.</p>
5. Comparative /Locational Advantage	<p>The only similar program in the Kansas Regents system is the existing undergraduate BME program at Wichita State University. Their 133-credit-hour program's curricular emphases are in the areas of sensing, biomechanics, and biomaterials, as evidenced by their published online listings of undergraduate research design projects. The two focused concentration areas of the KSU BME degree (biomedical sensors and devices; biomedical computation) exhibit minimal overlap with the WSU program. The focus on these two areas will promote skill development toward the design of hardware- and software-based medical devices and systems, including requisite skills in biosignal and image processing in both the time and frequency domains. These courses have foundations in existing courses and research programs managed by KSU engineering faculty. The KSU ECE Department supports a Bioengineering Option within Electrical Engineering, and the department already offers several biomedical courses.</p>

	<p>As noted above, the proposed BME program at KSU offers two initial areas of emphasis that relate thematically to “bioelectronics” or “bioinstrumentation.” Hanover<sup>2</sup> identified 10 institutions in the Plains and Great Lakes regions offering a bachelor’s degree program in biomedical engineering with a bioelectronics or bioinstrumentation concentration. The programs that are physically closest to Kansas are those at the University of Minnesota - Twin Cities and the Rose-Hulman Institute of Technology in Indiana. Three biomedical B.S degree programs exist in Missouri, and one resides in Oklahoma, but they all have very little overlap with this proposed program, especially from a biomedical devices and computation viewpoint.</p>
<p>6. Curriculum</p>	<p>This 133 semester credit hour curriculum consists of 1) 37 credits of biomedical engineering core courses; 2) 52 credits of math and science core courses; 3) 8 hours in a communication core; 4) 9 hours in a humanities and social sciences core; and 5) 27 hours in technical electives for one of two areas of emphasis: <i>Biomedical Sensors and Devices</i>, and <i>Biomedical Computation</i>. As with other BME programs, this program is structured to support a potential growth of concentrations through individualized selection of technical electives.</p>
<p>7. Faculty Profile</p>	<p>The initial faculty to support the B.S. program in Biomedical Engineering consists of four core ECE faculty members, two new faculty dedicated to the BME curriculum, and affiliate faculty from ECE and other departments at KSU, where the latter are potential collaborators who can engage in course development, project design, and undergraduate research. The four key faculty members, who have doctoral degrees relevant to Biomedical Engineering and maintain active research programs in this field, are:</p> <ul style="list-style-type: none"> <li>• Dr. Steve Warren, lead faculty member of the biomedical group; taught biomedical classes at KSU since 1999; director of the Medical Component Design Laboratory</li> <li>• Dr. Punit Prakash, assistant professor since 2012; director of the Biomedical Computing and Devices Lab</li> <li>• David Thompson, assistant professor since 2014; conducts research on brain-computer interfaces and medical devices</li> <li>• Caterina Scoglio, LeRoy and Aileen Paslay Professor, director of the Network Science and Engineering Group</li> </ul> <p>One instructor will be hired for the first year (AY 2018-19). Assuming enrollment meets expectations, a tenure-track faculty member will be hired the following year. At least nine other affiliated faculty in the College of Engineering will be associated with this program, each of whom will either teach required courses or lead activities such as undergraduate research.</p>
<p>8. Student Profile</p>	<p>Students who enter this program are anticipated to have strong interests in modern life sciences, supplemented with a fundamental base in math and physics. These may be students who (a) might otherwise not consider engineering as their main discipline; (b) desire to enroll in a KSU engineering degree program but whose interests do not resonate well with existing curricula; (c) would contemplate attending an out-of-state university in order to obtain a biomedical engineering degree; and/or (d) seek a pre-medicine curriculum with an engineering emphasis. Admission criteria will be consistent with current KSU College of Engineering criteria. In examining enrollment demographics of other BME programs across the</p>

	U.S., we expect a diverse student population, with significant enrollment from women and underrepresented populations.
9. Academic Support	<p>Advising for this program will follow the ECE Department advising model, which utilizes a general ECE advisor for students in their first two years. At the beginning of the third academic year, each student is assigned a BME faculty advisor for the remainder of the curriculum. Administrative support will be offered by current ECE staff.</p> <p>Additional academic resources are available to students through the KSU's library system and student services.</p>
10. Facilities and Equipment	<p>This program will require one teaching laboratory that will be made available via more effective scheduling of an existing ECE teaching laboratory. The 640-square-foot space is already equipped with benches that have black epoxy resin benchtops which are resistant to most chemicals, moisture, impact, and heat.</p> <p>Students enrolled in engineering courses are assessed an equipment fee that will support the purchase and maintenance of hardware and software needed for hands-on BME laboratories and design projects in that space; no additional funds beyond the equipment fee are anticipated. Students in the BME program will have access to all department and college general purpose computer laboratories.</p>
11. Program Review, Assessment, Accreditation	<p>The biomedical engineering program will seek ABET accreditation after the first graduates of the program have completed their degrees. The standard ABET process allows accreditation to be granted retroactively -- effective the year before the first degrees are granted. Assuming the first graduates complete their degrees in the year 2022, the initial accreditation would be sought for the 2021-2022 academic year. An assessment plan for measuring ABET student outcomes include evaluations of tests, projects, senior design experiences, and surveys.</p> <p>This program will be subject to an additional assessment processes from the Higher Learning Commission and the Kansas Board of Regents.</p>
12. Costs, Financing	<p>For the implementation of this program, salaries and fringe benefits total \$176,422. This includes \$38,965 of current faculty salaries, \$75,000 for new hires, \$19,500 for graduate assistants, \$15,000 for academic advisors, and \$27,957 for administration. The \$16,000 operating costs reflects one-third of the current monies allocated for the department's operating costs.</p> <p>Overall costs are \$192,422 for the implementation year (\$75,000 new cost), \$307,263 for year two (\$110,500 new cost), and \$393,322 for year three (\$112,680 new cost).</p> <p>Existing faculty and staff will also have instructional, academic support, and administrative FTEs associated with this program, but these will not be new costs. Financing for salaries will be provided by the College of Engineering, while startup costs will be shared equally by the KSU Department of Electrical &amp; Computer Engineering, the KSU College of Engineering, and the KSU Vice-President for Research.</p>

<sup>1</sup>Bureau of Labor Statistics. (2015, May). Retrieved from: <https://www.bls.gov/oes/current/oes172031.htm#nat>

<sup>2</sup> Hanover Research. (2016). Retrieved from: [http://www.hanoverresearch.com/wp-content/uploads/2016/05/Higher-Ed\\_IndustryReport1.pdf](http://www.hanoverresearch.com/wp-content/uploads/2016/05/Higher-Ed_IndustryReport1.pdf)

**CURRICULUM OUTLINE  
NEW DEGREE PROPOSALS  
Kansas Board of Regents**

**I. Identify the new degree: B.S in Biomedical Engineering**

**II. Provide courses required for each student in the major:**

**Math and Science Core ..... 52 Semester Credits**  
**Communication Core ..... 8 Semester Credits**  
**Humanities and Social Science Core ... 9 Semester Credits**  
**Biomedical Engineering Core ..... 37 Semester Credits**  
**Technical Electives ..... 27 Semester Credits**  
***Total ..... 133 Semester Credits***

<b>BIOMEDICAL ENGINEERING CORE</b>		<b>Credits</b>	<b>Semester</b>
BME 001	New Student Assembly	0	F
BME 200	Introduction to Biomedical Engineering	3	F
BME 430	Biomaterials	3	F
BME 451	Biomechanical Engineering	3	S
BME 490/491	Undergraduate BME Design Experience I/II	3	FS
BME 575	Clinical Systems Engineering	3	S
BME 590/591	Senior Design Experience I/II	6	FS
BME 674	Medical Imaging	3	S
CIS 200	Programming Fundamentals	4	FS
ECE 512	Linear Systems	3	FS
ECE 540	Applied Scientific Computing for Engineers	3	FS
ECE 772/3	Theory & Techniques of Bioinstrumentation Lecture/Lab	3	F
<b>Sub-Total Credit Hours</b>		<b>37</b>	

<b>OPTION I: AREA OF CONCENTRATION: BIOMEDICAL SENSORS &amp; DEVICES</b>		<b>Credits</b>	<b>Semester</b>
ECE 210	Introduction to Electrical Engineering	3	FS
ECE 241	Introduction to Computer Engineering	3	FS
ECE 431	Microcontrollers	3	FS
ECE 410	Circuit Theory I	3	FS
ECE 511	Circuit Theory II	3	FS
ECE 647	Digital Filtering	3	F
	Additional Technical Electives (below)	9	
<b>Sub-Total Credit Hours</b>		<b>27</b>	

**Illustrative Technical Electives...Need 9 credits from below**

ECE 690	Neural Interfacing	3	S
ECE 690	Thermal Therapy and Ablation	3	S
ME 615	Applications in Mechatronics	3	S
MATH 615	Introduction to Digital Image Processing	3	S
BAE 620	Biotechnology and Biosensors	3	F
ECE 557	Electromagnetic Theory I	4	FS
ECE 771	Control Theory Applied to Bioengineering	3	S
PHYS 651	Introduction to Optics	4	F
PHYS 652	Applied Optics and Optical Measurements	3	S

<b>OPTION 2: AREA OF EMPHASIS: BIOMEDICAL COMPUTATION</b>		<b>Credits</b>	<b>Semester</b>
ECE 241	Introduction to Computer Engineering	3	FS
CIS 300	Data and Program Structures	3	FS
ECE 431	Microcontrollers	3	FS
ECE 519	Electric Circuits and Controls	4	FSSu
CIS 501	Software Architecture and Design	3	FS
ECE 670	Engineering Applications of Machine Intelligence	3	S
	Additional Technical Electives (below)	8	
<b>Sub-Total Credit Hours</b>		<b>27</b>	
<b><u>Illustrative Technical Electives...need 8 credits from below:</u></b>			
MATH 510	Discrete Mathematics	3	FSSu
MATH 551	Applied Matrix Theory	3	FSSu
MATH 615	Introduction to Digital Image Processing	3	S
ECE 647	Digital Filtering	3	F
CIS 734	Introduction to Genomics and Bioinformatics	4	S
ECE 690	Neural Interfacing	3	S
ECE 648	Multimedia Compression	3	S
MATH 655	Elementary Numerical Analysis I	3	FS
CIS 544	Advanced Software Design and Development	3	SS

**IMPLEMENTATION YEAR: FY 2018–2019**

**Fiscal Summary for Proposed Academic Programs**

Institution: Kansas State University

Proposed Program: Bachelor of Science in Biomedical Engineering, CIP Code 14.0501

<b>Part I. Anticipated Enrollment</b>						
	<b>Implementation Year</b>		<b>Year 2</b>		<b>Year 3</b>	
	Full-Time	Part-Time	Full-Time	Part-Time	Full-Time	Part-Time
A. Full-time, Part-time Headcount:	30		60		90	
B. Total SCH taken by all students in program	900		1,800		2,700	
<b>Part II. Program Cost Projection</b>						
A. In <u>implementation</u> year one, list all identifiable General Use costs to the academic unit(s) and how they will be funded. In subsequent years, please include only the additional amount budgeted.						
	<b>Implementation Year</b>		<b>Year 2</b>		<b>Year 3</b>	
<u>Base Budget Salaries</u>						
Current faculty....	\$38,965		\$77,277		\$138,847	
New hires.....	\$75,000		\$110,500		\$112,680	
Grad Assistants....	\$19,500		\$59,670		\$81,120	
Academic Support.	\$15,000		\$15,300		\$15,600	
Administration.....	\$27,957		\$28,516		\$29,075	
Total Salaries.....	\$176,422		\$291,263		\$377,322	
OOE	\$16,000		\$16,000		\$16,000	
Total (New \$)	\$192,422 (\$75,000)		\$307,263 (\$110,500)		\$393,322 (\$112,680)	

Notes:

1. All salaries include a 2% annual pay increase.
2. Salaries for current faculty (Drs. Warren, Prakash, Thompson, and Scoglio) are transitioned annually into program costs as the courses they teach are offered in the curriculum. Year 3 costs reflect the full curriculum costs. Refer to the program narrative for information regarding these faculty and their respective time allocations.
3. For all tenure-track faculty, the salary portions for non-instructional activities such as research and service are not included.

4. New hires include an instructor at 1.0 FTE starting in the initial year and a new tenure-track assistant professor at 0.4 FTE starting in the second year.
5. Graduate assistants are transitioned annually into the program as the courses that require their assistance are offered. Year 1 reflects one graduate student on a 0.5 FTE appointment during the academic calendar year. Year 3 reflects a 2.0 FTE cost – four graduate assistants, each on a 0.5 FTE appointment during the academic calendar year.
6. Academic support refers to 25% of the full-time ECE department academic advisor's time – a 0.25 FTE commitment.
7. Administration refers to a 0.25 FTE commitment on behalf of Dr. Warren, who will serve as the program coordinator and provide administrative support.
8. The \$16K of OOE per year is 1/3 of the current ECE department OOE.

Indicate source and amount of funds if other than internal reallocation:

Financing for salaries will be provided by the College of Engineering. Associated startup costs for new faculty will be shared equally by the KSU Department of Electrical and Computer Engineering, the KSU College of Engineering, and the KSU Vice-President for Research.

## Act on Amendments to the Midwest Student Exchange Program (MSEP) Policy

### Summary and Recommendations

*This item is a request to revise Board policy governing the Midwest Student Exchange Program (MSEP). The proposed revisions are intended to streamline reporting and to also take advantage of what are now redundant reporting processes. Staff recommends approval.*

### Background

The Midwest Student Exchange Program (MSEP) was established in 1994 by the Midwestern Higher Education Commission (MHEC) with the goal of increasing access and affordability for students in Midwestern universities, which include Illinois, Indiana, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, and Wisconsin.

More than 100 Midwestern colleges and universities participate in the voluntary program. Each public university agrees to charge out-of-state students no more than 150% of in-state tuition for the programs the campus has designated for inclusion in MSEP. Private institutions allow a ten percent reduction on their tuition rates.

In 2001, the Board adopted the MSEP policy for governed institutions, and in 2004, adopted a separate policy for the coordinated institutions. Of the participating states, only Kansas established criteria for institutional participation in MSEP and for enrollment caps for governed institutions.

In 2011, these separate policies were combined into a single policy which then gave institutions the flexibility to submit programs to the Board at any time for inclusion in MSEP instead of once a year. The amendments also lifted the enrollment caps for the state universities. Provisions were added to ensure nonresident students enrolled through MSEP did not displace qualified Kansas residents, and institutions were required to file their guidelines for participation in MSEP with the Board office.

The policy amendments also required an annual report be provided to the President and CEO regarding approved programs and student participation in the MSEP program, and that Board staff maintain a list of programs approved by institutions for MSEP participation and monitor student participation via the MSEP annual report. In 2013, technical amendments were made to the policy to clarify how institutions include and remove programs from MSEP.

In 2015-2016, more than 10,000 students in nine states took advantage of the program. This includes the more than 600 nonresidents who enrolled in MSEP programs at Kansas institutions. During the same period a similar number of Kansans enrolled in MSEP programs in other states.

### Proposed Revisions to Board Policy

The proposed revisions to Board policy are intended to streamline reporting and to also take advantage of what are now redundant processes. The Midwest Higher Education Compact (MHEC) provides an annual report to the agency, which includes information on MSEP participation. The proposed policy revisions eliminate the requirement for Board staff to submit the same information to the President and CEO since the information is duplicative in nature.

A list of programs approved for MSEP eligibility for each institution is listed on the MSEP website. Requiring Board staff to maintain the same list is duplicative, and the proposed policy revisions would eliminate the requirement for Board staff to maintain a duplicative list. Finally, the requirement for each institution to file with the Board office the institution's guidelines for participation would be eliminated. The Board office does not maintain a file for most institutional policies and eliminating this requirement would align with current practice. Board staff would still monitor participation in MSEP through MHEC's annual report.

### Recommendation

Staff recommends approval of the proposed revisions.

**CHAPTER III: COORDINATION - STATE UNIVERSITIES, COMMUNITY COLLEGES, TECHNICAL COLLEGES, WASHBURN UNIVERSITY AND/OR THE WASHBURN INSTITUTE OF TECHNOLOGY**

**A ACADEMIC AFFAIRS** (See Chapter II., Section A. for additional academic affairs policies applicable to state universities)

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**16 PARTICIPATION IN MIDWEST STUDENT EXCHANGE PROGRAM FOR STATE UNIVERSITIES, COMMUNITY COLLEGES, TECHNICAL COLLEGES AND WASHBURN UNIVERSITY**

- a Each institution shall identify the programs that will be available for enrollment of students pursuant to the Midwest Student Exchange Program (MSEP), and shall report such programs to the System Council of Chief Academic Officers as an information item.
- b Programs will be approved or discontinued by action of the institution and reported to the System Council of Chief Academic Officers as an information item.
- c Programs will be removed from the ~~Midwest Student Exchange program (MSEP)~~ by action of the institution and reported to the System Council of Chief Academic Officers.
- d Tuition for students enrolled under the ~~MSEP program~~ shall be 150% of the participating institution's in-state resident tuition rate.
- e Students enrolled through MSEP shall not displace qualified Kansas residents, i.e., MSEP students shall be admitted only into degree programs that have enrolled all qualified Kansas residents wishing to pursue the program.
- f Each participating institution shall establish guidelines for program participation in MSEP, ~~which will be filed in the Board Office of Academic Affairs.~~
- g ~~An annual report shall be provided to the President and Chief Executive Officer regarding approved programs and student participation in the MSEP program.~~
- h Board staff will ~~maintain a list of programs approved by institutions for MSEP participation and monitor student participation~~ in MSEP via the Midwest Higher Education Compact's annual report.