KANSAS BOARD OF REGENTS
COUNCIL OF CHIEF ACADEMIC OFFICERS

VIRTUAL MEETING AGENDA
Wednesday, September 15, 2021
9:00 a.m. – 9:50 a.m.
or upon adjournment of SCOCAO

The Council of Chief Academic Officers (COCAO) will meet virtually via Zoom. Meeting information will be sent to participants via email, or you may contact arobinson@ksbor.org.

I.	**Call to Order**	Jill Arensdorf, Chair	
	A. Roll Call and Introductions		
	B. Approve Minutes from June 16, 2021		p. 3
II.	**First Readings**		
	A. AAS in Unmanned Aircraft Systems – K-State	Chuck Taber	p. 5
	B. MS in Aeronautics – K-State	Chuck Taber	p. 13
III.	**Second Readings**		
	A. MS in Athletic Training – WSU	Shirley Lefever	p. 23
	B. MS in Materials Engineering – WSU	Shirley Lefever	p. 32
IV.	**Other Requests**		
	A. Act on Request for Name Change of the MS and PhD in Environmental Engineering to the MS and PhD in Environmental & Water Resources Engineering – KU	Barbara Bichelmeyer	p. 40
	B. Act on Request for Name Change of the MS and PhD in Environmental Science to the MS and PhD in Environmental & Water Resources Science – KU	Barbara Bichelmeyer	p. 40
	C. Act on Request to Consolidate the BA and BGS in Classics & Classical Languages with the BA and BGS in Classical Antiquity resulting in the BA and BGS in Classics – KU	Barbara Bichelmeyer	p. 41
	D. Act on Request for Name Change of MA in Classics & Classical Languages to MA in Classics – KU	Barbara Bichelmeyer	p. 41
	E. Act on Request to Consolidate the Department of Psychology and the Department of Instructional Design & Technology, resulting in the Department of Psychology, Learning Science, & Instructional Technology – ESU	George Arasimowicz	p. 42
	F. Act on Request for Name Change of BS in General Human Ecology to BS in Integrative Human Sciences – K-State	Chuck Taber	p. 43
V.	**Council of Faculty Senate Presidents Update**	Janet Stramel, FHSU	
VI.	**Other Matters**		
	A. Discuss Opportunities (new degree programs, partnerships, strategic initiatives, etc.) that Universities are Considering or Planning to Pursue in the Future	COCAO Members	
VII.	**Next COCAO Meeting – November 17, 2021**		
	A. New Program Approval		
VIII.	**Adjournment**		

Date Reminder:

- September 24: Spoken English Language Competency Reports due to Sam Christy-Dangermond (schristy@ksbor.org)

COUNCIL OF CHIEF ACADEMIC OFFICERS

The Council of Chief Academic Officers, established in 1969, is composed of the academic vice presidents of the state universities. The Board's Vice President for Academic Affairs serves as an ex officio member, and the member from the same institution as the chairperson of the Council of Presidents serves as chairperson of the Council of Chief Academic Officers. The chief academic officers of the University of Kansas Medical Center and Washburn University are authorized to participate as non-voting members when agenda items affecting those institutions are to be considered. The Council of Chief Academic Officers meets monthly and reports to the Council of Presidents. The Council of Chief Academic Officers works with the Board Academic Affairs Committee through the Vice President for Academic Affairs. Membership includes:

Jill Arensdorf, Chair	FHSU	Howard Smith	PSU
George Arasimowicz	ESU	JuliAnn Mazachek	Washburn
Charles Taber	K-State	Shirley Lefever	WSU
Barbara Bichelmeyer	KU	Daniel Archer	KBOR
Robert Klein	KUMC		

Council of Chief Academic Officers

AY 2022 Meeting Schedule

***Tentative* COCAO Academic Year 2021- 2022 Meeting Dates**				
Meeting Dates	**Location**	**Lunch Rotation**	**Institution Materials Due**	**New Program Requests due**
September 15, 2021	Virtual Meeting		August 25, 2021	July 21, 2021
No meeting in October				
November 17, 2021	TBD		October 27, 2021	September 22, 2021
December 15, 2021	TBD		November 24, 2021	October 21, 2021
January 19, 2022	TBD		December 29, 2021	November 24, 2021
February 16, 2022	TBD		January 26, 2022	December 22, 2021
March 16, 2022	TBD		February 23, 2022	January 19, 2022
April 20, 2022	TBD		March 30, 2022	February 23, 2022
May 18, 2022	TBD		April 27, 2022	March 23, 2022
June 15, 2022	TBD		May 25, 2022	April 20, 2022

*COCAO meets at 9:00 a.m. or upon adjournment of SCOCAO unless otherwise noted.

Council of Chief Academic Officers
MINUTES

Wednesday, June 16, 2021

The June 16, 2021 meeting of the Council of Chief Academic Officers was called to order by Chair Shirley Lefever at 9:08 a.m. The meeting was initially scheduled to be held in Topeka. Due to the COVID-19 pandemic, it was held through Zoom.

In Attendance:

Members:	Shirley Lefever, WSU	Jill Arensdorf, FHSU	Robert Klein, KUMC
	Chuck Taber, K-State	George Arasimowicz, ESU	JuliAnn Mazachek, Washburn
	Barbara Bichelmeyer, KU	Howard Smith, PSU	Daniel Archer, KBOR
Staff:	Sam Christy-Dangermond	Amy Robinson	Cindy Farrier
	Karla Wiscombe	Tara Lebar	April Henry
Others:	Adam Borth, Fort Scott CC	Aleks Sternfeld-Dunn, WSU	Brian Lindshield, KSDE
	Cindy Hoss, Hutchinson CC	Clay Stoldt, WSU	Davood Askari, WSU
	Elaine Simmons, Barton CC	Heather Morgan, KACCT	Jane Holwerda, Dodge City CC
	Jason Sharp, Labette CC	Jean Redeker, KU	Jennifer Ball, Washburn
	Kim Morse, Washburn	Linnea GlenMaye, WSU	Kim Zant, Cloud County CC
	Luke Dowell, Seward CC	Mickey McCloud, JCCC	Marc Malone, Garden City CC
	Michelle Schoon, Cowley CC	Mindy Markham, K-State	Mike Strohschein, Washburn Tech
	Monette DePew, Pratt CC	Rich Bomgardner, WSU	Kaye Monk-Morgan, WSU
	Sharon Kibbe, Highland CC	Steven Skinner, WSU	Corey Isbell, NCK Tech
	Erin Shaw, Highland CC	Jerry Pope, KCKCC	Sarah Robb, Neosho County CC

Shirley Lefever welcomed everyone. Roll call was taken for members and presenters.

Approval of Minutes
Howard Smith moved to approve the May 19, 2021 meeting minutes, and Chuck Taber seconded the motion. With no corrections, the motion passed.

First Readings
Shirly Lefever presented the first readings for the following WSU programs:

1. Master of Science in Athletic Training
2. Master of Science in Materials Engineering

Rich Bomgardner, Athletic Training Program Director, provided an overview of the MS in Athletic Training. He stated their national accreditor and governing body, the Commission on Accreditation of Athletic Training Education (CAATE), requested that undergraduate programs be transitioned to a master level. This is a national requirement to maintain accreditation. They are currently operational at the undergraduate level and hope to begin at a master's level by June 2023. Chuck Taber noted the K-State athletic training program is supportive of the proposal. No questions were presented.

Davood Askari, Associate Professor of Mechanical Engineering, provided an overview of the MS in Materials Engineering. This is a new program based on a need in Kansas, and currently, there is no other BS, MS, or Ph.D. in materials science in the state. Davood stated they currently have courses and faculty that can be utilized, allowing them to start the program immediately after approval. He noted they would attract students from the

need in local industry. No questions were presented.

These programs will be up for their second reading at the September COCAO meeting.

Other Matters
Jean Redeker provided an overview of the KU requests found on page 22 of the agenda:

1. Name Change of Department of Slavic and Eurasian Languages & Literatures to Department of Slavic, German, and Eurasian Studies
2. Name Change of the BA in Slavic Languages & Literatures to BA in Slavic, German, & Eurasian Studies

Howard Smith moved to approve both KU requests as presented, and Jill Arensdorf seconded. With no questions presented, the motion passed unanimously through a roll-call vote. These requests will go to Blake Flanders, President and CEO, for final approval.

Council of Faculty Senate Presidents (COFSP) Update
Aleksander Sternfeld-Dunn, WSU Faculty Senate President, provided an update. Aleks thanked the COCAO members as this will be his last meeting, and a new Faculty Senate President will start attending in September. At the COFSP's meeting later that day, they plan to welcome new faculty senate presidents, discuss challenges and opportunities for the upcoming year, and potentially discuss the state government request on whether critical race theory is being taught. Aleks noted it would be beneficial for faculty to have a virtual option for future COCAO meetings and endorsed hybrid meeting modality. The Council thanked Aleks for his service.

Opportunities that Universities are Considering or Planning to Pursue in the Future
No discussion was presented.

Adjournment
The next COCAO meeting is tentatively scheduled for September 15, 2021.

Howard Smith moved to adjourn the meeting, and Jill Arensdorf seconded the motion. With no further discussion, the meeting adjourned at 9:20 a.m.

Program Approval

Summary

Universities may apply for approval of new academic programs following the guidelines in the Kansas Board of Regents Policy Manual. Kansas State University has submitted an application for approval and the proposing academic unit is responding to all of the requirements of the program approval process.

September 15, 2021

I. General Information

A. Institution Kansas State University

B. Program Identification

Degree Level:	Associate of Applied Science
Program Title:	Unmanned Aircraft Systems (UAS)
Degree to be Offered:	Associate of Applied Science in Unmanned Aircraft Systems
Responsible Department or Unit:	College of Technology and Aviation/UAS Department
CIP Code:	49.0101
Modality:	Face-to-Face
Proposed Implementation Date:	Spring 2022

Total Number of Semester Credit Hours for the Degree: 60

II. Clinical Sites: Does this program require the use of Clinical Sites? No

III. Justification

Technical certificates and associate degree offerings have been central to the core mission and educational offerings of K-State Polytechnic since 1967. These offerings are critical to our ability to serve the aviation and technology industries that rely on our graduates for their workforce needs. Kansas statutes annotated the ability to offer such programs during the merger between Kansas College of Technology (K-State Polytechnic) and Kansas State University in 1991.

- KS 76-213. Powers and authority of board of regents; regarding the Kansas state university polytechnic campus. (a) The state board of regents has and may exercise the following powers and authority: (1) To determine the programs of technical education and other programs which shall be offered and the certificates of completion of courses or curriculum and degrees which may be granted by the Kansas State University Polytechnic
- (b) As used in this section, the term "technical education" means vocational or technical education and training or retraining which is given at Kansas State University Polytechnic campus, and which is conducted as a program of education designed to educate and train individuals as technicians in recognized fields. Programs of technical education include, but not by way of limitation, aeronautical technology inclusive of professional pilot training, construction technology, drafting and design technology, electrical technology, electronic technology, mechanical technology, automatic data processing and computer technology, industrial technology, metals technology, safety technology, tool design technology, cost control technology, surveying technology, industrial production technology, sales service technology, industrial writing technology, communications technology, chemical control technology, quality control technology and such additional programs of technical education which may be specified from time to time by the board of regents.

K-State Polytechnic initiated work in unmanned aircraft systems in the state of Kansas in 2007 and has provided certificates and degrees at both the undergraduate and graduate level in this arena for over 15 years. The institution was the second institution of higher education in the nation to offer the degree program and is currently nationally ranked as the number two program in the United States. Our expertise in this area is used to establish national standards and guide the work being done to safely integrate this technology into the national airspace. To date, we have trained over 4,000 individuals across the nation in applications of this technology. Like the personal computer, unmanned aircraft have quickly emerged as an enabling technology and are used to support multiple industries. There will undoubtedly be several programs across the state in the future as the applicability of this technology is expansive and associate programs will vary in focus.

The unmanned sector within the aviation industry continues to grow at a rapid rate. As the Federal Aviation Administration (FAA) continues to open access to the National Airspace System (NAS), the demand for qualified Unmanned Aircraft Systems (UAS) pilots will continue to increase. As the FAA develops standards for increasingly complex operations, a robust education and training program will help ensure safe, qualified pilots are available to fill the increased industry demand for operational experts. The varying complexity of UAS operations also implies various levels of education and training are appropriate for different career paths, similar to manned aviation. KSU was the second university to offer a Bachelor of Science in Aeronautical Technology (BATN) degree with a UAS option in the nation. The four-year degree continues to have merit and will continue to be relevant moving forward. However, we also recognize the merits of a two-year AAS option to serve the blooming UAS industry. As we went down the AAS development path, we felt it was important to have a distinction between the two degree levels, while at the same time ensuring a level of employability by both. After discussing over faculty meetings, we decided to focus on multi-rotor aircraft training at the AAS level, but not to include the more advanced components that include fixed-wing aircraft flight activities. We also did not include manned aircraft training as a component of the curriculum as an added distinction. Another consideration in this regard is the high cost of manned pilot training labs as well as the limited access that other schools would have to offer such courses.

Our vision for this AAS is three-fold:

1. To offer it on our campus to students looking for a two-year option to begin a practical UAS career. The AAS consists entirely of courses in our BATN degree. The implication is that if they choose to complete the AAS and then continue to pursue a four-year program, they are 60 credit hours away from the BATN. We did this consciously, while also maintaining a distinction in expertise that AAS graduates will have vs. BATN graduates (see below).
2. As we forge a deeper relationship with USD 305 to establish the PolyCats Academy, to create a pathway for some high school students to obtain an AAS by the time they graduate high school (USD 305, 2020).
3. In response to conversations with some community colleges and KDOT, we aspire to create curricular partnerships with institutions that want to ensure seamless transfer to our 4-year degree. Those schools selecting to partner could utilize this curriculum and also enter into a "2+2" agreement so their graduates could continue their BS pursuits with KSU.

This proposed degree program will prepare students to serve as UAS flight instructors in multi-rotor aircraft. Recipients of this degree will be qualified to serve as commercial UAS pilots nationwide. Applications include public safety, infrastructure inspection, aerial photography and videography. As the FAA continues to expand their rulemaking, it will also include package delivery among others. For students seeking the continuation of their expertise, graduates of this program will be able to continue to pursue BATN in UAS at Kansas State University's Polytechnic campus. The proposed curriculum is designed as a "2+2" feeder into the bachelor's degree. This program will be part of a high school academy we are establishing to serve the Salina, KS area (PolyCats Academy).

Kansas has a long history in fulfilling the needs of the aviation industry. Kansas State University was the second university in the nation to offer a UAS-focused degree. Its UAS department, through its Applied Aviation Research Center (AARC) has developed a national reputation in UAS research, operations and training. Much of the AARC's success is founded on a series of FAA relationships. The AARC is one of 15 core universities in the nation that serves as ASSURE, the FAA's UAS Research Center of Excellence. As a partner with the Kansas Department of Transportation (KDOT), the AARC led KDOT's efforts to be granted authorization for advanced operations as one of nine participants in the Presidentially directed UAS Integration Pilot Program. Finally, the FAA chose KSU's UAS program as one of the first members of its new UAS Collegiate Training Initiative program. These activities are capturing national-level attention by various companies of the UAS industry. As these corporate partnerships and the FAA relationships develop, the UAS program is involving students in the advanced operations to prepare them for this rapidly evolving industry. Kansas is an aviation state; Kansas State University has an opportunity to aid in providing skilled aviators that are ready for the workforce. Kansas State University Polytechnic Campus has traditionally offered associates degrees and instituting this degree will lead to increased enrollment in a field that needs skilled workers.

IV. Program Demand:

Market Analysis

This proposed AAS is comprised of half the courses from the existing BATN UAS degree. The purpose of this approach is to create opportunities for students completing this degree to continue on to a 4-year program in a true "2+2" fashion.

Due to the nature of the UAS industry being new, distilling data to the state level was problematic. From a national perspective, data regarding growth, demand, and salaries is included here. Nationally, community colleges with UAS programs are growing. KSU Polytechnic is part of the FAA's UAS Collegiate Training Initiative (CTI). Through the CTI as well as through regional knowledge of our UAS program, we field many calls from community colleges asking for advice on starting a program. At the state level, the Aviation Director of KDOT encouraged K-State to establish a two-year program to be licensed to community colleges across the state, which came from feedback he received when talking to community colleges across the state. Additionally, multiple community colleges and technical colleges continue to contact our UAS Department to explore consulting with them to establish UAS programs to serve their communities. Most of these conversations indicate an interest in a "2+2" program that could feed into our BATN degree. As we looked at this option, we determined that an approach may be to establish a licensing structure in which we create opportunities for partnerships across Kansas to leverage our expertise in this area and expand accessibility to UAS education and careers across Kansas. Additionally, this will help us serve aspiring high school students in our local area.

The Federal Aviation Administration (2019) projects that the commercial UAS fleet nationwide will double its 2019 values by 2024, an indication of the vast growth of the UAS market. The same paper predicts that as "…professional grade small UAS meet feasibility criteria of operations, safety, regulations, and satisfy economics and business principles and enters into the logistics chain via small package delivery, the growth in this sector will likely be phenomenal" (FAA, 2019, p. 53). The same document reports that remote pilots (RPs) "… are set to experience tremendous growth following the growth trends of the commercial sUAS sector. Starting from the base of 162,185 RPs in 2019, commercial activities may require almost 350,000 RPs in 5 years, more than two-fold increase, providing tremendous opportunities for growth in employment associated with commercial activities of UAS. Potential for RPs may enhance even more if larger UAS are used in commercial activities and urban air mobility become a reality in the near future" (FAA, 2019, p.59).

V. Projected Enrollment for the Initial Three Years of the Program

Year	Headcount Per Year		Sem Credit Hrs Per Year	
	Full- Time	Part- Time	Full- Time	Part- Time
Implementation	15		420	
Year 2	20		1040	
Year 3	25		1340	

VI. Employment

According to recent article in Business News Daily (2019):

> UAS pilots are in demand. In fact, the Association for Unmanned Vehicle Systems International projected more than 100,000 new jobs will be created in unmanned aircraft by the year 2025. A recent report from Goldman Sachs projected $17 billion of spending on drones from 2016 to 2020 coming from consumers and another $13 billion from commercial and civil industries. That's because more professionals, like realtors, security firms, advertising agencies, architects, construction firms and developers are looking for aerial video to do business. (Conlin, 2019)

This same article indicates that the average hourly rate of UAS pilots is $24.18, with rates varying from $17.75 to $78.49 per hour (Conlin, 2019).

VII. Admission and Curriculum

A. Admission Criteria

University Admission Requirements:

Admission to K-State is test optional and requires achieving

- A high school GPA (weighted or unweighted) of 3.25 or higher **OR**
- ACT composite score of 21 **OR** an SAT ERW+M of 1060 or higher

AND, if applicable, achieve a 2.0 GPA or higher on all college credit taken in high school.

B. Curriculum

Year 1: Fall **SCH = Semester Credit Hours**

Course #	Course Name	SCH=15
UAS 270	Introduction to Unmanned Aircraft Systems	3
Math 100	College Algebra	3
COT 105	Mastering Academic Conversations	3
ENG 100	Expository Writing I	3
	UAS or AVT Elective	3

Year 1: Spring

Course #	Course Name	SCH=13
AVT 100	Introduction to Aviation	3
Math 150	Plane Trigonometry	3
UAS 115	Multirotor Flt Lab	1
Psych 110	Gen Psych	3
	UAS or AVT Elective	3

Year 2: Fall

Course #	Course Name	SCH=17
UAS 275	Small Unmanned Aircraft Maintenance	3
COM 106	Public speaking I	3
PHYS 113	General Physics I	4
UAS 312	UAS Flight Instructor Ground School	3
UAS 314	Multi-Rotor Instructor Flight Lab	1
	Elective	3

Year 2: Spring

Course #	Course Name	SCH=15
AVT 340	Human Factors in Aviation	3
UAS 272	UAS Safety Fundamentals	3
UAS 370	Design & Construct	3
UAS 474	UAS Process Data	3
ECON 110/120	Principals of Micro or Macro Econ	3

Total Number of Semester Credit Hours …… 60

VIII. Core Faculty

Note: * Next to Faculty Name Denotes Director of the Program, if applicable
FTE: 1.0 FTE = Full-Time Equivalency Devoted to Program

Faculty Name	Rank	Highest Degree	Tenure Track Y/N	Academic Area of Specialization	FTE to Proposed Program
Kurt Carraway*	Dept Head	MS	N	UAS training, CRM, Aeronautical Decision Making, Safety	0.3
David Burchfield	Professor	MS	N	Design & Construction, Data Processing and Exploitation	0.3
Sam Kleinbeck	Professor	BS	N	UAS training, CFII, CFI, Safety, Maintenance and Repair	0.3
Travis Balthazor	Instructor	MS	N	UAS training, CFII, CFI, Safety, Regulations	0.1

Number of graduate assistants assigned to this program …… 0

IX. Expenditure and Funding Sources *(List amounts in dollars. Provide explanations as necessary.)*

A. EXPENDITURES	First FY	Second FY	Third FY
Personnel – Reassigned or Existing Positions			
Faculty	$95,235.91	$95,235.91	$95,235.91
Administrators *(other than instruction time)*	0	0	0
Graduate Assistants	0	0	0
Support Staff for Administration (*e.g., secretarial*)	0	0	0
Fringe Benefits *(total for all groups)*	$28,570.77	$28,570.77	$28,570.77
Other Personnel Costs	0	0	0
Total Existing Personnel Costs – Reassigned or Existing	$123,806.68	$123,806.68	$123,806.68
Personnel – – New Positions			
Faculty	0	0	0
Administrators *(other than instruction time)*	0	0	0
Graduate Assistants	0	0	0
Support Staff for Administration (*e.g., secretarial*)	0	0	0
Fringe Benefits *(total for all groups)*	0	0	0
Other Personnel Costs	0	0	0
Total Existing Personnel Costs – New Positions	0	0	0
Start-up Costs - - One-Time Expenses			
Library/learning resources			
Equipment/Technology			
Physical Facilities: Construction or Renovation			
Other			
Total Start-up Costs	0	0	0
Operating Costs – Recurring Expenses			
Supplies/Expenses	0	0	0
Library/learning resources	0	0	0
Equipment/Technology	0	0	0
Travel	0	0	0
Other	0	0	0
Total Operating Costs	0	0	0
GRAND TOTAL COSTS	$123,806.68	$123,806.68	$123,806.68

B. FUNDING SOURCES *(projected as appropriate)*	Current	First FY (New)	Second FY (New)	Third FY (New)
Tuition / State Funds		$122,934	$304,408	$392,218
Student Fees	0	0	0	0
Other Sources				
GRAND TOTAL FUNDING		$122,934	$304,408	$392,218
C. Projected Surplus/Deficit (+/-) (Grand Total Funding *minus* Grand Total Costs)		-$872.68	$180,601.32	$268,411.32

X. Expenditures and Funding Sources Explanations

A. Expenditures

Personnel – Reassigned or Existing Positions
No new courses will be offered for the two-year program and there are existing seats available in the UAS bachelor's degree to support program growth during the first year. Additional sections of the required courses can be added during years 2 and 3 within the capacity of existing staff.

As indicated in VII, above, the three primary faculty involved are Carraway, Burchfield and Kleinbeck, each calculated at 30% FTE for this program. Additionally, Balthazor is a part-time faculty member and will contribute at 10%.

Personnel – – New Positions
There is no anticipated need for additional personnel within the first three years.

Start-up Costs – One-Time Expenses
There is no need for additional start-up costs; these courses are also offered in the Bachelor program and there are seats available.

Operating Costs – Recurring Expenses
Additional recurring expenses are minimal, as equipment/technology is already available and being used for the bachelor's degree.

B. Revenue: Funding Sources

Tuition will be the primary funding source for the program. Using current distribution of resident and non-resident enrollment in the bachelor degree, K-State Polytechnic Kansas resident tuition rates (resident = $292.70 per SCH, non-resident = $788.80 per SCH), and the SCH table in Section IV Projected Enrollments, we calculated the tuition dollars that would be generated from the program each year. We are conservatively calculating everything based off of in-resident tuition rates for the first three years of the program as the initial implementation will be targeting regional students at the high school level as well as those seeking to start off their collegiate career regionally (similar to community college and technical school students).

Flight training fees are billed separate from tuition and support all training operations through restricted fee

accounts. These expenses are not included in this analysis as faculty and resources for classroom instruction are supported through tuition revenue.

C. Projected Surplus/Deficit

With no new faculty or resources needed, the program should experience a minor deficit in year one, and then become a surplus.

XI. References

Conlin, B. (2019, May 30). How to Use a Drone for Your Business. *Business News Daily.* https://www.businessnewsdaily.com/10967-become-commercial-drone-pilot.html

Federal Aviation Administration (FAA). (2019). Unmanned Aircraft Systems. *FAA Aerospace Forecasts*. https://www.faa.gov/data_research/aviation/aerospace_forecasts/media/unmanned_aircraft_systems.pdf

USD 305 Salina Public Schools. (2020, Nov 30). Opportunities Expand for HS Students. https://www.usd305.com/news/featured_news/opportunities_expand_for_hs_students

Program Approval

Summary

Universities may apply for approval of new academic programs following the guidelines in the Kansas Board of Regents Policy Manual. Kansas State University has submitted an application for approval and the proposing academic unit has responded to all of the requirements of the program approval process.

September 15, 2021

I. General Information

A. Institution Kansas State University Polytechnic Campus

B. Program Identification

Degree Level:	Master's
Program Title:	Aeronautics
Degree to be Offered:	Master of Science
Responsible Department or Unit:	College of Technology and Aviation/Aviation Department
CIP Code:	49.0101
Modality:	Hybrid
Proposed Implementation Date:	Spring 2022

Total Number of Semester Credit Hours for the Degree: 30 total credits

II. Clinical Sites: Does this program require the use of Clinical Sites? No

III. Justification

The Master of Science in Aeronautics with options in leadership/policy and Aerospace Certification, is a unique program well connected to emerging industry trends in an industry which is dramatically shifting and has been disproportionately affected by the current global pandemic. These factors present unique challenges in the areas of leadership and policy implementation.

Further, due to industry events in recent years, the aerospace manufacturing sector is calling for a new set of skills to emerge from academia to better support current and forecast workforce needs. The sector most impacted by this recent development is aerospace manufacturing where recent high-profile failures have highlighted a skills gap in the technical area of airworthiness certification. Recently, two major industry standards groups have developed both knowledge/skill standards in airworthiness certification, as well as recommended career pathway guidance. Both standards groups are currently collaborating through a reconciliation effort and KSU is one of several institutions actively engaged in that process.

Both needs point to a necessity for a Master of Science degree in aeronautics with options to support these two industry demands. This program will prepare graduates for leadership and advanced technical positions in the Aviation/Aerospace industry. Students will be prepared to be thought

leaders within their spheres of influence proffering unique, resilient solutions aimed at assisting U.S. Aviation/Aerospace industries to maintain their position of global competitiveness.

The M.S.in Aeronautics (M.S.A.) will further the Polytechnic campus mission to bring Kansas State University's high-quality academic programs, research, and public service to the greater global community to serve workforce, economic, and community development needs. This program is central to the recent campus strategic initiative in aviation.

The M.S. in Aeronautics is also closely aligned with the mission of the refreshed K-State 2025 plan: "By 2025, Kansas State University will be a premier, student-centered, public research university serving communities at home and across the globe through our land-grant mission." It also supports the following two of seven thematic goals and common elements of K-State 2025:

1. RSCAD- Create a culture of excellence that results in flourishing, sustainable, and widely recognized **research, scholarly and creative activities, and discovery** in a variety of disciplines and endeavors that benefit society as a whole.

2. Graduate Scholarly Experience- Advance a culture of excellence that attracts highly talented, diverse graduate students and produces graduates recognized as outstanding in their respective professions.

Given its close alliance with national industry needs, the program will promote entrepreneurship and vibrant external partnerships in the Aviation/Aerospace industry critical to the economic growth of the state and region.

The KSU Polytechnic campus is currently the only institution in the Kansas Board of Regents System that will offer a Master of Science in Aeronautics. Currently airworthiness certification is an emerging discipline in the field of engineering. The M.S.A. program will focus specifically on airworthiness certification and not aeronautical engineering/aerospace engineering which are different disciplines. Thus, this degree is not duplicated anywhere else in the KBOR system.

This graduate program has been created in direct response to the campus Global Aviation Initiative strategic planning process which aims to raise our competitiveness in the aviation sphere to international prominence. One main element lacking in the establishment of this vision is a research-based graduate program in aeronautics. This program will be aimed at the establishment of thought leadership in the aviation/aerospace industry and will provide the needed expertise, incentive, and opportunity for this campus to be industry influencers across multiple segments of aeronautics.

IV. Program Demand:

A. Student demand for the program

This is the only program of its kind in the central U.S., in addition to the fact that central Kansas is a recognized aerospace sector manufacturing node. Students in the B.S. program in Aeronautical Technology at the Polytechnic campus (by far the largest program) will be able to transition into the M.S.A. following graduation. Another characteristic that will drive enrollments nationally and

globally is the online availability of the program.

B. Market Analysis

Demand for graduates with skill sets in both leadership/policy and Aerospace Certification engineering has been strongly indicated by industry feedback through industry interviews and the results of a survey with over 60 industry respondents. Moving forward beyond the traumatic events of 2020, this industry has a strong need of talented leadership and thought leaders who can help ensure the safety of our National Airspace System in an era of diminished resourcing, environmental sensitivities, disease mitigation and a host of other increasing existential threats.

Our survey of just over 60 industry respondents included alumni, advisory board members, and industry representatives. The survey closed in late May of 2020. Industries represented in these groups ranged from aircraft manufacturers, airlines, and other aviation service industries. Over 85% of those respondents indicated that they either agreed (27%) or strongly agreed (58%) with the intended direction of this degree. Positive respondents commented that this degree would fulfill a large current gap in industry and would provide an increased level of competitiveness for our graduates in the workforce. Companies represented and job titles of respondents (in their own words) in this survey are available on request.

Regarding the second track or option of the M.S. in Aerospace Certification, we in Kansas are uniquely positioned to offer this program with our proximity to Wichita, the Air Capital, being home to a variety of tier 1, 2 and 3 aviation manufacturers (OEMs- Original Equipment Manufacturers). Tier 1 companies are the largest manufacturers while tiers 2 and 3 are progressively smaller supporting companies. This industry is an enormous contributor to the economy of Kansas and has a global impact. It was in a Polytechnic aviation advisory board meeting that the idea for academic involvement in airworthiness skill set was first requested to help fill the skill gap in view of a large wave of looming retirements. This situation has only been worsened by the pandemic, as often the most experienced employees are best-positioned to accept buy-out packages which lower overall payroll obligations and thereby make more room for younger workers.

A survey of aerospace industry data obtained from the Kansas Department of Commerce (EMSI, 2020) indicates the following:

1. Over 87% of the jobs advertised in this sector required at least a B.S. with 37% requiring an M.S. or Ph.D.

2. Kansas is listed in the top 12 states for aerospace manufacturing jobs

3. The average number of nationwide job postings at any one time is approximately 2,500 with an average salary of over $116,000/year.

4. Over 56% of current employees in this sector are over age 45.

5. Average number of job postings in the sector for the year ending in July 2020 was 6,451 with only 1,479 of those being filled.

6. Of the ten top common job skills listed by employers in these advertisements, the M.S.A program, between both options, as it stands now covers nine of ten of those solidly, with ten of ten, given the right electives.

V. Projected Enrollment for the Initial Three Years of the Program

Year	Headcount Per Year		Sem Credit Hrs Per Year	
	Full- Time	Part- Time	Full- Time	Part- Time
Implementation	4	7	72	63
Year 2	8	12	120	108
Year 3	14	18	228	162

FT Student = 18 hours/year 1 (includes summer), 12 hours/year 2
PT students = 9 hours/year (includes summer)

VI. Employment

A trend that is well-established in the aviation sector which is related to higher education in general is the fact that as the general economy declines, enrollments in institutions of higher education, specifically aviation programs in this case, most always increase as people return to gain a new and more current arsenal of skills. It is therefore incumbent on academic programs to more competitively leverage their programs to provide unique value during periods of economic growth to sustain enrollments.

The hybrid delivery format will allow maximum flexibility that compliments a trend toward going directly into the workforce as soon as possible after high school (perhaps with a certificate of skills from a technical school etc.). Those who need, and have become accustomed to, flexible degree offerings may find the online option more appealing as they continue their education into graduate school.

The following figures, taken from state economic modeling data illustrate a high level of demand in the employment market for graduate degree options in the aerospace sector. For example, figure 1 shows that nearly 37% of the position openings in the aerospace industry in 2020 specified the requirement for a graduate degree.

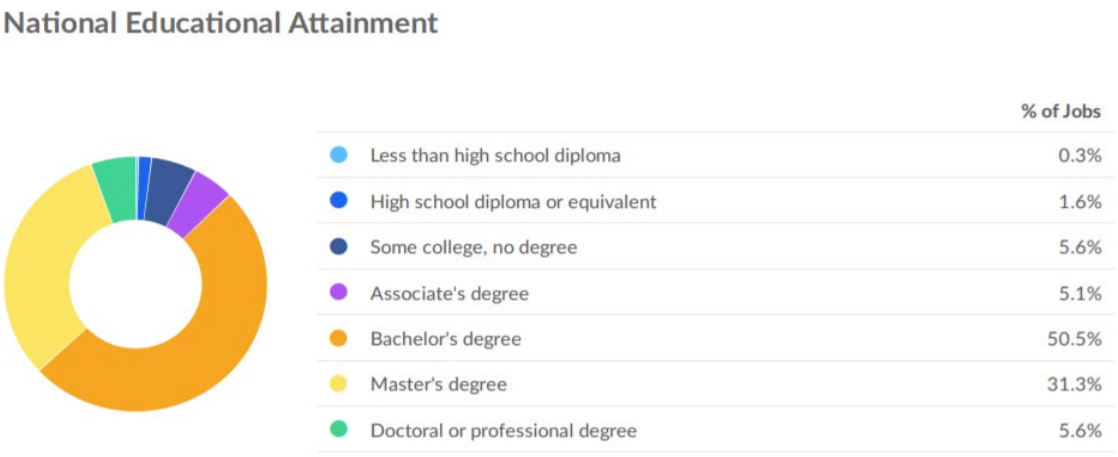
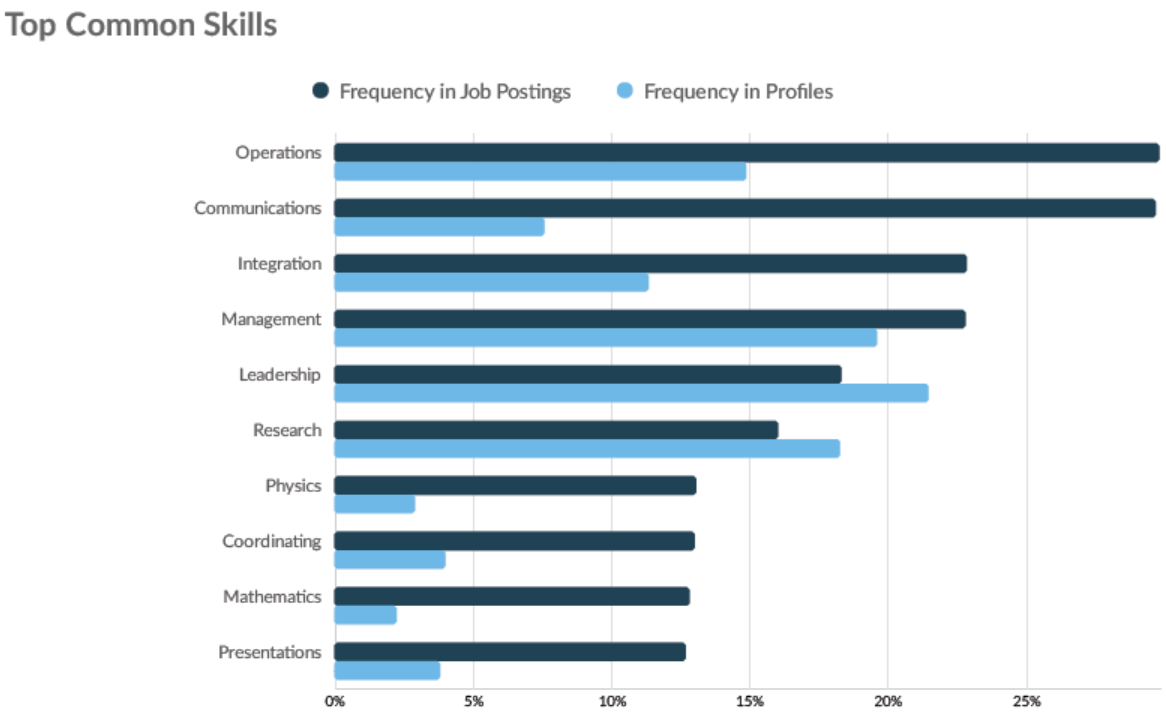


Fig. 1. Comparison of workforce needs by educational training- note that nearly 37% of jobs specified post-baccalaureate education (EMSI, 2020).

A 2020 scan of Aerospace Industry job postings indicated the top ten common skills mentioned in those postings included those listed in Figure 2. With reference to this proposal, the coursework included in the Master of Science in Aeronautics covers nine of those ten subject areas with the exception being physics.



Skills	Postings	% of Total Postings	Profiles	% of Total Profiles
Operations	27,107	30%	8,048	15%
Communications	26,998	30%	4,086	8%
Integration	20,785	23%	6,137	11%
Management	20,736	23%	10,585	20%
Leadership	16,642	18%	11,607	21%
Research	14,578	16%	9,884	18%
Physics	11,879	13%	1,564	3%
Coordinating	11,829	13%	2,154	4%
Mathematics	11,661	13%	1,208	2%
Presentations	11,552	13%	2,058	4%

Fig. 2. Top common skills mentioned in aerospace job postings (EMSI, 2020).
Note the M.S.A. curriculum covers all of these topics with the exception of Physics.

VII. Admission and Curriculum

A. Admission Criteria

Admission criteria and entrance requirements will follow the standard requirements outlined in the Kansas State University Graduate Handbook:

a. A bachelor's degree from a college or university accredited by the cognizant regional accrediting agency,

b. Undergraduate preparation in the proposed major field equivalent to that acquired by a graduate of Kansas State University, or evidence of an appropriate background for undertaking an advanced degree program, and

c. Cumulative grade point average (GPA) of 3.0 or higher on a 4.0 scale or GPA of 3.0 in the last 60 hours of coursework. This GPA is based only on courses graded on a multi-level scale, usually A, B, C, D, F.

Students with undergraduate backgrounds other than aviation or engineering will be admitted conditionally at the discretion of the admissions committee. A 3.0 undergraduate G.P.A. on a 4.0 scale during the last 60 hours of coursework is required for admission. Other material required for admission: Official undergraduate transcripts, two letters of recommendation and a letter expressing personal goals in the completion of this program.

B. Curriculum

Year 1: Fall **SCH = Semester Credit Hours**

Course #	Course Name	SCH….
AVT 611	Aviation Regulation & Certification	3
COT 701	Advanced Technical Writing	3

Year 1: Spring

Course #	Course Name	SCH….
AVT 707	Research Methods	3
AVT 771	Leadership in the Aerospace Sector	3
	OR	
AVT 841	Management of Aerospace Safety	3

Year 1: Summer

Course #	Course Name	SCH….
AVT 722	Aircraft Type Certification	3
AVT 734	Aircraft Production Certification	3
	OR (Above is for Aerospace certification, below is for Leadership option)	
AVT 704	Managerial Finances, Metrics, and Analytics	3
AVT 751	Aerospace Policy	3

Year 2: Fall

Course #	Course Name	SCH….
AVT 744	Aviation Human Factors Analysis and Design	3
AVT 841	Management of Aerospace Safety	3
	OR (Above is for Aerospace certification, below is for Leadership option)	
AVT 771	Leadership in the Aerospace Sector	3
AVT	One restricted technical elective from designated list	3

Year 2: Spring

Course #	Course Name	SCH….
AVT 838	M.S. Aeronautics Thesis	6
	OR	
AVT 836	M.S. Aeronautics Capstone Project	3
	and elective	3

Total Number of Semester Credit Hours ……. 30

VIII. Core Faculty

Note: * Next to Faculty Name Denotes Director of the Program, if applicable
FTE: 1.0 FTE = Full-Time Equivalency Devoted to Program

Faculty Name	Rank	Highest Degree	Tenure Track Y/N	Academic Area of Specialization	FTE to Proposed Program
1. Kurt Barnhart	Professor	Ph.D.	tenured	Aviation	0.5
2. Austin Walden	Assistant Professor	Ph.D.	Y	Aviation	0.5
3. New Hire	Assistant Professor	M.S./Ph.D.	Y	Aviation/Aerospace	1.0
4. New Part-time Hire	Professor of Practice	M.S./Ph.D.	N	Aviation/Aerospace	0.5
Various	PT Adjunct	M.S.	N	Aviation/Aerospace	

Number of graduate assistants assigned to this program ……. **0**

IX. Expenditure and Funding Sources *(List amounts in dollars. Provide explanations as necessary.)*

A. EXPENDITURES	First FY	Second FY	Third FY
Personnel – Reassigned or Existing Positions			
Faculty	$65,000	$160,000	$160,000
Administrators *(other than instruction time)*			
Graduate Assistants			
Support Staff for Administration (*e.g., secretarial*)	$2,500	$5,000	$5,000
Fringe Benefits *(total for all groups)*	$21,600	$52,800	$52,800
Other Personnel Costs			
Total Existing Personnel Costs – Reassigned or Existing	$89,100	$217,800	$217,800
Personnel – New Positions			
Faculty	$50,000	$200,000	$200,000

Administrators *(other than instruction time)*			
Graduate Assistants			
Support Staff for Administration (*e.g., secretarial*)	$2,500	$5,000	$5,000
Fringe Benefits *(total for all groups)*	$16,800	$65,600	$65,000
Other Personnel Costs			
Total Existing Personnel Costs – New Positions	$69,300	$270,600	$270,600
Start-up Costs – One-Time Expenses			
Library/learning resources			
Equipment/Technology	$2,000	$2,000	$4,000
Physical Facilities: Construction or Renovation			
Other			
Total Start-up Costs	$2,000	$2,000	$4,000
Operating Costs – Recurring Expenses			
Supplies/Expenses	$100	$200	$200
Library/learning resources			
Equipment/Technology	$100	$200	$200
Travel	$180	$360	$360
Other			
Total Operating Costs	$380	$760	$760
GRAND TOTAL COSTS	$160,780	$491,160	$493,160

B. FUNDING SOURCES *(projected as appropriate)*	Current	First FY (New)	Second FY (New)	Third FY (New)
Tuition / State Funds		$56,943	$96,170.40	$164,502
Student Fees		$0	$0	$0
Other Sources		$50,000	$50,000	$50,000
GRAND TOTAL FUNDING		$106,943	$146,170	$214,502
C. Projected Surplus/Deficit (+/-) (Grand Total Funding *minus* Grand Total Costs)		($53,837)	($344,990)	($278,658)

X. Expenditures and Funding Sources Explanations

A. Expenditures

Personnel – Reassigned or Existing Positions: A combined 1.0 FTE will come from faculty members 1 and 2 in section VIII of this document. Faculty will be reassigned in the second half of the 2022-23 Academic Year.

Personnel – New Positions: 2 New faculty positions are anticipated by year 2, The first at 1.0 FTE assigned to MSA and the second at .5 FTE assigned to MSA. A varying number of adjunct instructors will be critical to the success of this program from the standpoint of content currency and relevancy and will share the teaching load.

Start-up Costs – One-Time Expenses: Limited to computer and office equipment.

Operating Costs – Recurring Expenses: Limited to office costs and travel

B. Revenue: Funding Sources

A combination of Tuition/State Funding + $50,000 in annual program startup funding from central administration in Manhattan. Using SCH at $421.80/credit hour at in state tuition:

Year 1 = $421.80 x 135 full and part time students = $56,943,
Year 2 = $421.80 x 228 full- and part-time students = $96,170.40
Year 3 = $421.80 x 390 full- and part-time students = $164,502.

C. Projected Surplus/Deficit

Program enrollments are expected to increase significantly after year three as reputation builds. Break-even and surplus revenue should occur in year four or five.

XI. References

Economic Modeling Specialists International (EMSI). (2020). Third Quarter 2020 Report for Aerospace Engineers. (Provided by Kansas Department of Commerce.)

Program Approval

Summary

Universities may apply for approval of new academic programs following the guidelines in the Kansas Board of Regents Policy Manual. Wichita State University has submitted an application for approval and the proposing academic unit has responded to all of the requirements of the program approval process.

September 15, 2021

I. General Information

A. Institution Wichita State University

B. Program Identification

Degree Level:	Master's
Program Title:	Athletic Training
Degree to be Offered:	Master of Science in Athletic Training
Responsible Department or Unit:	Human Performance Studies/College of Applied Studies
CIP Code:	51.0913
Modality:	Face-to-Face
Proposed Implementation Date:	June 1, 2023

Total Number of Semester Credit Hours for the Degree: 62

II. Clinical Sites: Does this program require the use of Clinical Sites? Yes.

The program is a degree transition as per accreditation requirements. The current bachelor's program at Wichita State University (WSU) has clinical education agreements and memoranda of understanding with numerous clinical sites for assigned students. The clinical sites are located within the metropolitan area of Wichita as well as several surrounding communities. These clinical sites have been affiliated with the bachelor's level WSU Athletic Training program for many years and will continue to provide clinical education opportunities for WSU athletic training students in the future.

III. Justification

WSU proposes to establish a graduate program in athletic training to meet national standards and guidelines for accreditation through the Commission on Accreditation of Athletic Training Education (CAATE). CAATE accredits programs in athletic training and is recognized by the Council of Higher Education Accreditation (CHEA). On May 20, 2015 the Athletic Training Strategic Alliance (ATSA), which consists of the Board of Certification (BOC), CAATE, National Athletic Trainers' Association (NATA), and the National Athletic Trainers' Foundation (NATAF) made the formal announcement that entry-level athletic training degree programs are required to transition to the master's degree. Therefore, the purpose of this proposal is to transition the current Bachelor of Arts (BA) in Athletic Training degree to a Master of Science in Athletic Training (MSAT) degree to meet CAATE requirements.

The athletic training major has been a successful program at WSU dating back to pre-CAATE accreditation and the initiation of the BA degree in Athletic Training. WSU was approved for the BA degree in Athletic Training by the Kansas Board of Regents in Spring 2005, successfully completed CAATE initial program accreditation in Spring 2008 and successfully completed CAATE re-accreditation in spring 2013. The CAATE awarded the BA degree the maximum period of 10 years re-accreditation for their successful self-study and site visit. These

successes demonstrate the work of the program, its personnel and the students in making the BA degree a positive and valuable part of the WSU mission.

The CAATE has a responsibility to ensure and require an educational framework that prepares students to be successful as athletic trainers. Allied health care education is expanding and developing more skilled and highly qualified practitioners. The trend of moving educational programs in allied health care fields is not a new concept as occupational therapy, physical therapy and physician assistant have migrated to graduate based professional programs. Professional education must provide the foundation that allows clinicians to adapt to the changing face of healthcare. We believe that in order to ensure better healthcare and the viability of athletic training in future years, the professional degree must be at the master's level.

The CAATE standard and timeline on the proposed MSAT degree program delineates CAATE accredited professional athletic training programs must result in the granting of a master's degree in Athletic Training. The degree must appear on the official transcript similar to normal designations for other degrees at the institution. The timeline for compliance with the standard states "baccalaureate programs may not admit, enroll, or matriculate students into the athletic training program after the start of the fall term 2022."

The MSAT degree proposal meets the needs of both students and athletic training practitioners located in the Wichita metropolitan area. A degree program which prepares athletic trainers benefits the community by providing opportunities for aspiring health care professionals in settings such as college/university athletic programs, high school athletic programs, professional sports, industrial/ corporate facilities, sports medicine clinics, and other professional degree programs.

IV. Program Demand: Market Analysis

The CAATE reported 365 accredited professional programs during the 2018-2019 academic year (2020). Of the 365 accredited professional programs, 209 programs result in a Baccalaureate degree (down from 297 in 2016-2017 and 252 in 2017-2018) and 156 programs result in a Master's degree (up from 76 in 2016-2017 and 111 in 2017-2018). On May 20, 2015, the Athletic Training Strategic Alliance (ATSA), which consists of the Board of Certification (BOC), CAATE, National Athletic Trainers' Association (NATA), and the National Athletic Trainers' Foundation (NATAF), made the formal announcement that entry-level athletic training degree programs are required to transition to the Master degree (2015). This pattern of change is an expected result of the professional degree transition announced in 2015. Since the CAATE deadline for degree programs to transition to the master's degree is Fall 2025, it is predicted this trend will continue.

Every year since 2013, master's degree students have demonstrated higher BOC pass rates on their national examination for first-time test takers as compared to Bachelor degree students (CAATE, n.d.). In addition, the three-year aggregate first time BOC exam pass rate scores are used to determine compliance with Standard 11, which mandates an aggregate first-time BOC exam pass rate of 70% or higher. National program compliance with Standard 11 was 78%, with Master's degree programs scoring 85% and Bachelor's programs recording 7% (2020). The evidence consistently shows master's level students possess greater competency and proficiency in athletic training knowledge and skill sets. The importance of Standard 11 cannot be underestimated as failure to comply with Standard 11 can result in probationary status of the program or even program accreditation withdraw.

Placement rates as analyzed by the CAATE over the 2017-2020 three-year period show 69% of graduating students will either become employed as an athletic trainer (AT), employed as an AT in a degree or residency program (graduate assistant in AT or internship in AT), or will enroll in another degree program (e.g. physical therapy, physician assistant, etc.) (CAATE, n.d.). Student placement rates dropped from 73% in 2018-2019 to 57% in 2019-2020 largely due to the COVID pandemic. The CAATE also noted in their 2018-2019 Analytics Report program demographics reveal female enrollment makes up approximately 65% of all professional programs (2020). Similar to the NATA report in 2017, female interest in athletic training is continually growing

and female student membership in the NATA is greater than males. As new careers and opportunities in athletic training open across the globe, student interest, particularly interest among females, keeps developing.

As stated previously, the demand for athletic trainers continues to foster across the nation. Data from the Bureau of Labor Statistics demonstrates employment of athletic trainers is projected to grow 19 percent from 2018 to 2028, much faster than the average for all occupations (U.S. Department of Labor, 2021). The estimated employment change is a possible increase of 5,900 jobs. Demand for athletic trainers is expected to increase as people become more aware of the effects of sports-related injuries, and as the middle-aged and older population remains active.

V. Projected Enrollment for the Initial Three Years of the Program

Year	Headcount Per Year		Sem Credit Hrs Per Year	
	Full- Time	Part- Time	Full- Time	Part- Time
Implementation	15	0	480	0
Year 2	20	0	1090	0
Year 3	20	0	1240	0

VI. Employment

The NATA reported in December 2017 membership grew over 10% to over 50,000. National data reveals 28% of memberships are students and membership by gender is 56% female and 44% male. Not only are student memberships growing; but the former trend of the athletic training profession as a whole being a majority male environment is fading away. In 2005, the NATA reported 47.5% membership as female so athletic training is becoming a more viable career for women (McManus, 2014).

According to the Kansas Board of Healing Arts, as of May 2021, there are 696 active licensed athletic trainers in the state of Kansas. Athletic trainers work with people of all ages and all skill levels, from young children to soldiers and professional athletes. Athletic trainers are usually one of the first healthcare providers on the scene when injuries occur on the field and work under the direction of a licensed physician along with other healthcare providers.

Data from the Bureau of Labor Statistics demonstrates employment of athletic trainers is projected to grow 19 percent from 2018 to 2028, much faster than the average for all occupations (U.S. Department of Labor, 2021). The estimated employment change is an increase of 5,900 jobs. Demand for athletic trainers is expected to increase as people become more aware of the effects of sports-related injuries, and as the middle-aged and older population remains active.

The proposed MSAT will use allied health care professionals from the Wichita medical community as guest speakers, clinical educators, clinical instructors, and evaluators of student skills. Also, there are educational possibilities for internships with the FC Wichita (soccer), Kansas Collegiate Summer Baseball League (baseball), Wichita Wind Surge (minor league baseball), Wichita Force (arena football league), Wichita Thunder (minor league hockey), Friends University (NAIA), Newman University (NCAA Division II) and the majority of high schools in the city of Wichita and the surrounding metropolitan area.

VII. Admission and Curriculum

Post-baccalaureate students pursuing admission will be required to hold a bachelor's degree with a minimum undergraduate 2.75 GPA, and have completed all pre-requisites for program admission. The 2020 CAATE standards require students to have prerequisite courses in biology, chemistry, physics, psychology, anatomy and

physiology at the postsecondary level (Standard 54). Additionally, students must gain foundational knowledge in statistics, research design, epidemiology, pathophysiology, biomechanics and pathomechanics, nutrition, pharmacology, public health, and health care delivery and payor systems incorporated into prerequisite coursework or as a component of the professional program (Standard 55). Prospective students will apply for admission to the Graduate School, submit their MSAT admission packet and complete a personal interview prior to formal selection and admittance. The MSAT admission materials packet must include:

Admission Materials Packet for MSAT:

1. Completed application for the MSAT
2. Letter of interest
3. Three letters of recommendation (i.e. teachers, coaches, advisors, employers, etc.)
4. Official transcripts from all colleges/universities attended
5. Health examination by a licensed medical professional
6. Immunization record including HBV, TB, and Influenza
7. Signed technical standards (American with Disabilities Act Statement)
8. Student liability insurance
9. Personal health insurance
10. Hold current CPR/AED/First Aid certification from nationally accredited organization
11. Complete and successfully pass a background screening
12. Verification of 100 observation hours by a Certified Athletic Trainer
13. Successful completion of the following required courses with a C or higher:
    a. Human Anatomy and Physiology: 3-4 credit hours
    b. Medical Terminology: 3 credit hours
    c. Biomechanics/Kinesiology: 3 credit hours
    d. Care and Prevention of Athletic Injuries: 3 credit hours
    e. Exercise Physiology: 3-4 credit hours
    f. Elementary Statistics: 3 credit hours
    g. General Psychology: 3 credit hours
    h. General Chemistry: 3-4 credit hours
    i. Nutrition: 3 credit hours
    j. General Physics: 3-4 credit hours
    k. General Biology: 3-4 credit hours

A. Curriculum

Year 1: Summer

Course #	Course Name	9
HPS 713	Palpatory Evaluation and Assessment in Athletic Training	3
HPS 741	Clinical Techniques in Athletic Training	3
HPS 717	Emergency Care and Management in Athletic Training	3

Year 1: Fall **SCH = Semester Credit Hours**

Course #	Course Name	10
HPS 721	Athletic Injury Evaluation 1	3
HPS 731	Foundations in Athletic Training	3
HPS 771	Applied Learning 1	4

Year 1: Spring

Course #	Course Name	13
HPS 860	Research Methods	3

HPS 722	Athletic Injury Evaluation 2	3
HPS 770	Therapeutic Interventions 1	3
HPS 772	Applied Learning 2	4

Year 2: Summer

Course #	Course Name	9
HPS 882	Athletic Injury Rehabilitation	3
HPS 810	Evidence Based Practice in Athletic Training	3
HPS 872	General Medical Conditions in Athletic Populations	3

Year 2: Fall

Course #	Course Name	10
HPS 873	Organization & Administration in Athletic Training	3
HPS 871	Therapeutic Interventions 2	3
HPS 853	Applied Learning 3 (Immersive)	4

Year 2: Spring

Course #	Course Name	11
HPS 762	Statistical Concepts in Human Performance Studies	3
HPS 851	Applied Research	3
HPS 854	Applied Learning 4	4
HPS 813	Athletic Training Board of Certification Review	1

Total Number of Semester Credit Hours ……. 62

VIII. Core Faculty

Faculty Name	Rank	Highest Degree	Tenure Track Y/N	Academic Area of Specialization	FTE to Proposed Program
*Rich Bomgardner	Associate Professor	EdD	Y	Athletic Training	1.0
Whitney Bailey	Clinical Education Coordinator	MED	N	Athletic Training	1.0
Lindsay Luinstra	Assistant Professor	DAT	Y	Athletic Training	1.0
Jennifer Hudson	Adjunct Lecturer	MS	N	Athletic Training	0.10
Carolyn LeFevre	Adjunct Lecturer	MPS	N	Athletic Training	0.10

Notes: FTE: 1.0 FTE = Full-Time Equivalency Devoted to Program
* Next to Faculty Name Denotes Director of the Program

Number of graduate assistants assigned to this program **……. 0**

IX. Expenditure and Funding Sources

A. EXPENDITURES	First FY	Second FY	Third FY
Personnel – Reassigned or Existing Positions			
Faculty	$198,284	$202,250	$206,295
Administrators *(other than instruction time)*	$0	$0	$0
Graduate Assistants	$0	$0	$0
Support Staff for Administration (*e.g., secretarial*) 0.3 FTE	$10,421	$10,421	$10,421
Fringe Benefits *(total for all groups)*	$70,462	$71,814	$73,193
Other Personnel Costs (lecturers)	$3,500	$3,500	$3,500
Total Existing Personnel Costs – Reassigned or Existing	$282,667	$287,985	$293,409
Personnel – New Positions			
Faculty	$0	$0	$0
Administrators *(other than instruction time)*	$0	$0	$0
Graduate Assistants	$0	$0	$0
Support Staff for Administration (*e.g., secretarial*)	$0	$0	$0
Fringe Benefits *(total for all groups)*	$0	$0	$0
Other Personnel Costs	$0	$0	$0
Total Existing Personnel Costs – New Positions	$0	$0	$0
Start-up Costs - One-Time Expenses			
Library/learning resources	$0	$0	$0
Equipment/Technology	$5,000	$4,000	$0
Physical Facilities: Construction or Renovation	$0	$0	$0
Other	$0	$0	$0
Total Start-up Costs	$5,000	$4,000	$0
Operating Costs – Recurring Expenses			
Supplies/Expenses	$3,000	$3,000	$3,000
Library/learning resources	$0	$0	$0
Equipment/Technology	$0	$0	$0
Travel	$4,500	$4,500	$4,500
Other (CAATE Annual Accreditation Fee)	$4,500	$4,500	$4,500
Total Operating Costs	$12,000	$12,000	$12,000
GRAND TOTAL COSTS	$299,667	$303,985	$305,409

B. FUNDING SOURCES *(projected as appropriate)*	Current	First FY (New)	Second FY (New)	Third FY (New)
Tuition / State Funds		$159,425	$362,027	$411,848
Student Fees (program fee)		$3,000	$7,000	$8,000
Student Fees (course fee)		$14,400	$32,700	$37,200
Student Support Fee		$25,469	$59,428	$67,918
Other Sources (taping fee)		$1,500	$2,000	$2,000
GRAND TOTAL FUNDING		$203,794	$463,155	$526,966
C. Projected Surplus/Deficit (+/-) (Grand Total Funding *minus* Grand Total Costs)		($95,873)*	$159,107	$221,557

*-Graduate program deficit partially offset by final year of students enrolled in undergraduate program. See X.B – Projected Surplus/Deficit below.

X. Expenditures and Funding Sources Explanations

A. Expenditures

Personnel – Reassigned or Existing Positions

The athletic training program currently has two 1.0 FTE faculty positions in the Department of Human Performance Studies dedicated to the athletic training program and responsible for program operations. Rich Bomgardner, EdD, LAT, ATC, serves as the Program Director and Whitney Bailey, MEd, LAT, ATC, serves as the Clinical Education Coordinator. Ms. Bailey is currently completing her doctoral degree with an anticipated graduation date of summer 2021. Standard 41 from the 2020 CAATE Standards for Accreditation of Professional Athletic Training Programs requires a minimum of three core 1.0 FTE athletic training faculty members to be dedicated to the program. Lindsay Luinstra, DAT, LAT, ATC, occupied a non-tenure track Assistant Educator position in HPS from Fall 2018 until Summer 2020. Her position was approved in Fall 2019 to transition to a tenure-track Assistant Professor position for FY 2021. The 1.0 additional FTE faculty member as required by the CAATE, must be an athletic trainer, hold an earned doctorate, and have a tenure-track appointment. Dr. Luinstra meets all criteria for this position. Salary data from Table IX A represents a 2% increase in salary per year for all three positions. Secretarial support was figured at 0.3 FTE with this position already operating in the HPS department and providing support for the existing athletic training undergraduate program. Additionally, the program has two 0.10 FTE adjunct lecturers assigned to teach courses in athletic training. Each adjunct lecturer would be assigned to teach one course, HPS 741 – Clinical Techniques in Athletic Training or HPS 882 – Athletic Injury Rehabilitation.

Personnel – New Positions

No new personnel are needed for this program.

Start-up Costs – One-Time Expenses

This program is currently operating which minimizes any start-up costs. Infrastructure such as classrooms, laboratory space, teaching and applied learning equipment, as well as clinical facilities are already in place. The CAATE has also developed new educational competencies and standards for athletic training students not currently taught in the program which would involve the purchase of additional equipment. Equipment for teaching and student practice includes, but is not limited to: extremity dislocation reduction models, suturing equipment and models, intravenous equipment and models, orthotic devices, custom prophylactic devices and

other teaching and applied learning aids. The new items would require initial expenditures of approximately $9,000 which could be spread out over two years to purchase equipment.

Operating Costs – Recurring Expenses

The program is currently operating which minimizes any recurring expenses. The program is required to pay an annual fee of $4,500 to the CAATE to maintain program accreditation status. Normal program funding from the College of Applied Studies and Department of Human Performance Studies includes office supplies, operational expenses, faculty professional development, expendable and non-expendable equipment. There will be some new recurring costs related to the purchase of the new program equipment (license fees, warranty, etc.). In addition, an updated tracking system used to monitor new CAATE competencies will be included in the new recurring costs stated above. Since the program is currently operating, there are no additional administrative assistant or library support expenses to be included.

B. Revenue: Funding Sources

Tuition and fees are the primary source of funding for the program. Current enrollment data demonstrates 80% of students are Kansas residents and 20% are considered non-resident. Non-resident student tuition is categorized into special rates (e.g. Shocker City Partnerships, Shocker Select, Midwest Exchange, or Global Select) or regular non-resident rates. Projected revenue was calculated by using percentages of resident and non-resident students as stated above. Kansas residents in year one was projected as $301.94/credit hour X 384 SCH (80% of student enrollment). Non-resident projected rate was calculated as $452.92/credit hour X 96 SCH (20% of student enrollment). Year 2 revenue was projected at $301.94 X 872 SCH (80% student enrollment) and non-resident projected rate would be $452.92/credit hour X 218 (20% student enrollment). Year 3 revenue was projected as $301.94/credit hour X 992 SCH (80% student enrollment) and non-resident project rate would be $452. 92/credit hour X 248 SCH (20% student enrollment). A student support fee of $679.18 per student will be assessed for fall and spring semester as well as $339.60 for summer session. This will generate $25,469 for the first year, $59,428 for the second year and $67,918 in year three. In addition, students are currently assessed a $30 per credit hour course fee to cover expendable supplies, teaching aids, and physical examination equipment. This fee would generate $14,400 in year 1, $32,700 in year 2 and $37,200 in year 3. A program fee of $100 per semester/student will help in the purchase and licensing of a computerized tracking system to monitor CAATE competencies and student outcomes. This will generate an additional $3,000 in year one, $7,000 in year 2 and $8,000 in year three. Lastly, the program also currently has a $100 one-time fee for taping and bandaging supplies and generates a revenue of $1,500 in additional monies in year one, $2,000 in year 2 and $2,000 in year three.

C. Projected Surplus/Deficit

As we phase out the current bachelor's program, there will be a projected deficit due to lower undergraduate enrollment. The new master's program is projected to have a deficit in revenue in the first year; however, we anticipate a surplus emerging as the program attains full enrollment in cohorts beginning in year 2. Further, the first year of the new graduate program will overlap with the final year of undergraduate students completing the bachelor's program. If one assumes eight students are part of that senior class and applies a similar residential/non-residential formula (75% residential), this would yield a projected tuition rate of $228.09 X 144 SCH (Kansas resident) totaling $32,845 and $540.27 X 48 (Non-Kansas resident) totaling $25,933 from those undergraduates for a projected tuition revenue of $58,778. Applying that amount of tuition against the projected graduate program Year 1 deficit of $95,873, the actual program-level deficit is $37,095. Year 2 graduate program surplus more than offsets the Year 1 deficit with additional surpluses projected for each year thereafter. Indeed, the projected funding could exceed estimates due to increased enrollment, which is possible as the existing program has 38 enrolled students utilizing 24 clinical sites.

XI. References

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Program Approval

Summary

Universities may apply for approval of new academic programs following the guidelines in the Kansas Board of Regents Policy Manual. Wichita State University has submitted an application for approval and the proposing academic unit has responded to all of the requirements of the program approval process.

September 15, 2021

I. General Information

A. Institution Wichita State University

B. Program Identification

Degree Level:	Master's
Program Title:	Materials Engineering
Degree to be Offered:	Master of Science in Materials Engineering
Responsible Department or Unit:	College of Engineering
CIP Code:	14.1801
Modality:	All (Face-to-Face, Online, and Hybrid)
Proposed Implementation Date:	Fall 2021

Total Number of Semester Credit Hours for the Degree: 33

II. Clinical Sites: Does this program require the use of Clinical Sites? No

III. Justification

The manufacturing industry in Kansas including Wichita needs a trained workforce in materials engineering. Modern and emerging technologies exploit materials at their fundamental level to design superior products to be competitive in the global market, including those used in aerostructures. While there are several materials- related academic content areas within Wichita State University (WSU) as well as other Kansas Board of Regents institutions, there currently is not a BS, MS, or PhD program in "Materials Engineering" that specifically focuses on leveraging fundamental materials properties in the design process.Building upon our established strength in advanced materials, the College of Engineering (COE) at WSU has the faculty and graduate courses to develop the proposed program with minimal additional investment.

The proposed interdisciplinary Master's in Materials Engineering program may be achieved by completing 33 credit hours (CHs) of coursework. Various departments within the COE already offer a sufficient numberof courses and content in support of the program. Five core courses are defined by graduate-level certificateprograms, meaning that these courses will be regularly offered and widely available to students in the proposed program. The MS in Materials Engineering is targeted to students who have an undergraduate degree in any field of engineering or physical science (physics, chemistry, geology, etc.) as well as working professionals who aspire to attain a higher level of knowledge in materials and manufacturing.

IV. Program Demand

A. Survey of Student Interest

Number of surveys administered: ……	1
Number of completed surveys returned: …….	109
Number of students interested in program: …….	54
Percentage of students interested in program: …	49.5%

The College of Engineering conducted a survey of undergraduate students in engineering and related fields at Wichita State University plus some working professionals in the Wichita area to determine the demand for this proposed program. Responders included 105 full-time students—many who are also working full time or part time in local industry—and four recent graduates. Out of these students, 76% expressed an interest to pursue a master's degree to advance their career, and 73% indicated interest to have advanced knowledge of materials engineering to be successful in their professional career. Out of the 109 responses received, 54 (49.54%) indicated that they would definitely be interested in pursuing the proposed program if WSU were to offer it, and 30 students wanted to enroll in the program right after their graduation. While most expressing an interest in the proposed program indicated interest only in a master's degree, some (22%) also indicated interest for a PhD degree in this area after completing the master's degree.

B. Market Analysis

There has been steady demand for materials engineering graduates in Wichita and Kansas City, the two major metropolitan areas in the state of Kansas. Advertisements for job openings posted at Indeed.com have shown 10+ openings in Wichita and 65+ openings in the Kansas City area that require a master's degree in Materials Engineering (2021). Similarly, there is a nationwide demand for graduates with the same. For example, Oklahoma City (40+), Denver (160+), Houston (120+), Dallas (190+), and New York City (810+) have posted a high demand for master's degree graduates in this field because they are critical for a variety of industries such as aerospace, automotive, pharmaceutical, consumer products, and medical devices (2021). Therefore, the demand for the proposed program is quite significant in Kansas as well as in the nation.

Wichita State University has also done a formal market survey of jobs requiring a master's degree in Materials Engineering in both local areas (Wichita, Kansas City, Newton, Hesston, Salina, Manhattan, and Lawrence) and in the region (Kansas, Missouri, Nebraska, and Oklahoma). The local area had an average of ten openings each month, with the range being 4 to 23 openings. Over the same time period, the greater region had an average of 85 openings per month, with the range being 43 to 104. The top employers seeking these professionals included Spirit AeroSystems, Textron, Honeywell International, Northrop Grumman, and United Technologies Corporation.

Based on current employment trends, demand for professionals with a master's degree in Materials Engineering is expected to grow at a rate of 9.7% in the local area over the next ten years. Our study investigated the competition from other universities in the greater region. As stated above, currently, there is not a master's program in Materials Engineering at any Kansas university, making the proposed program especially important. While Missouri University of Science and Technology, Washington University in St. Louis, and Oklahoma State University offer similar programs, the three schools combined together graduated only ten students over a recent academic year, which again underscores the unmet workforce needs in this area of study.

Taken together, the data demonstrates strong demand for professionals with a master's degree in Materials Engineering in Wichita and the region. The proposed program will be a critical piece in fulfilling this talent gap, helping the state retain its manufacturing and engineering competitive advantage.

V. Projected Enrollment for the Initial Three Years of the Program

Year	Headcount Per Year		Sem Credit Hrs Per Year	
	Full-Time	Part-Time	Full-Time	Part-Time
Implementation	10	10	210	90
Year 2	25	15	645	225
Year 3	40	20	1,140	405

The headcount projection of full-time and part-time students for years one through three are provided in the above table. Full-time status for graduate students is defined as nine or more credit hours per semester. Full-time credit hours are calculated assuming the student takes a full load of nine credits in the fall and spring semesters, plus – on average – each full-time student takes a single three-credit class in the summer. Part-time credit hours are calculated assuming – on average – each part-time student is half-time enrolled in the fall and spring semesters. The total number of Semester Credit Hours Per Year is calculated based on the projected cumulative number of enrollments for both full-time and part-time students.

VI. Employment

The Bureau of Labor Statistics (BLS) predicts that the national need for materials engineers will remain flat over the 2018–2028 ten-year period (2021). The BLS assessment specifically states, "Materials engineers will be needed to design uses for new materials both in traditional industries, such as aerospace manufacturing, and in industries focused on new medical or scientific products." Moreover, they stress the importance of materials engineering to manufacturing, making the need in South Central Kansas particularly important. Focusing on specific occupational and wage data for materials engineers in Kansas, the state currently has approximately 270 materials engineers, with an annual average salary of $105K, which is in the highest stratum that the BLS has defined nationally for this occupation (2020). Given that no Kansas university currently offers a master's degree in Materials Engineering, the proposed program fills a much-needed workforce training gap for the state.

VII. Admission and Curriculum

A. Admission Criteria

Students admitted to the MS in Materials Engineering program will possess a Bachelor of Science (BS) degree in one or more of the following majors: Materials Engineering, Material Science, Metallurgical Engineering, Mineral Engineering, Mechanical Engineering, Aerospace Engineering, Industrial Engineering, Manufacturing Engineering, Biomedical Engineering, Electrical and Computer Engineering, Chemical Engineering, Process Engineering, Physics, Chemistry, Geology, or a closely related discipline, upon approval by the Graduate Program Coordinator. Entering students must have a cumulative bachelor's grade point average (GPA) of at least 3.0 (out of 4.0) and must satisfy all other entrance requirements of the Graduate School at Wichita State University.

B. Curriculum

The proposed MS in Materials Engineering curriculum is designed to give students maximum flexibility to tailor courses to their professional goals. Specifically, students must complete at least nine credit hours (three courses) from the set of CORE courses listed in the table below. In addition, students must take an additional 24 credit hours (typically corresponding to eight additional courses) from the union of "core" and "technical elective" course sets. Core courses will typically be offered once a year, and technical elective courses will be offered every one to two years. To satisfy the "applied learning" requirement of Wichita State University, students must take at least one course with significant applied learning components or complete an approved semester-long graduate internship/cooperative education, or a one-credit MS Directed Project, or present one of their class

projects/term papers to outside professionals. As a course-only master's program, no comprehensive exit examination is required for completion of the degree.

The following is a sample curriculum (with advanced structural materials focus) for a full-time graduate student (with nine credit hours enrollment during fall and spring semesters) to complete the program in two years. Typically, CORE courses will be offered once every year and Technical Elective courses will be offered once every one to two years.

Year 1: Fall **SCH = Semester Credit Hours**

Course #	Course Name	9
AE 753	Mechanics of Laminated Composites (Core)	3
ME 762	Polymeric Composite Materials (Core)	3
AE 733 or ME 760	Advanced Mechanics of Materials (Elective) or Fracture Mechanics (Elective)	3

Year 1: Spring

Course #	Course Name	9
ME 665	Selection of Materials for Design and Manufacturing (Core)	3
IME 755	Design of Experiments (Elective)	3
AE 853	Advanced Mechanics of Laminated Composites (Elective)	3

Year 1: Summer

Course #	Course Name	3
BME 771 or IME 775	Polymer Processing and Technology (Core) or Computer Integrated Manufacturing (Core)	3

Year 2: Fall

Course #	Course Name	9
AE 831	Continuum Mechanics (Elective)	3
ME 672 & L	Manufacturing of Composites and Laboratory (Core	3
IME 758	Analysis of Manufacturing Processes (Elective)	3

Year 2: Spring

Course #	Course Name	3
AE 737 or ME 866 or ME 890	Mechanics of Damage Tolerance (Elective) or Advanced Fracture Mechanics (Elective) or Independent Study in Mechanical Engineering (Elective)	3

Total Number of Semester Credit Hours ……. 33

VIII. Core Faculty

Faculty Name	Rank	Highest Degree	Tenure Track (Y/N)	Academic Area of Specialization	Percent FTE Devoted to Proposed Program
Muhammad Mustafizur Rahman*	Professor	PhD	Y	Thermodynamics, Phase Change Materials	10

Ramazan Asmatulu	Professor	PhD	Y	Nanomaterials, Corrosion	5
Suresh Keshavanarayana	Professor	PhD	Y	Composite Materials	5
Anil Mahapatro	Associate Professor	PhD	Y	Biomaterials, Polymer	5
Wilfrido Moscoso	Associate Professor	PhD	Y	Machining of Materials	5
Bhisham Sharma	Assistant Professor	PhD	Y	Meta-Materials	5
Gamal Weheba	Professor	PhD	Y	Additive Manufacturing	5
Eylem Asmatulu	Assistant Professor	PhD	Y	Recycling of Materials	5
Bin Li	Associate Professor	PhD	Y	Polymer Materials	5
Davood Askari	Associate Professor	PhD	Y	Composite Materials	5
Rajeev Nair	Associate Professor	PhD	Y	Laser Machining	5
Tewodros Zewde	Assistant Teaching Professor	PhD	N	Wireless-Powered Communications	5

*Graduate Program Coordinator Note:
FTE: 1.0 FTE = Full-Time Equivalency Devoted to Program

Number of graduate assistants assigned to this program **0**

IX. Expenditure and Funding Sources *(List amounts in dollars. Provide explanations as necessary.)*

A. EXPENDITURES	**First FY**	**Second FY**	**Third FY**
Personnel—Reassigned or Existing Positions			
Faculty	$60,520	$62,335	$64,206
Administrators *(other than instruction time)*	7,508	7,734	$7,966
Graduate Assistants			
Support Staff for Administration (*e.g., secretarial*)			
Fringe Benefits *(total for all groups)*	23,810	24,524	$25,260
Other Personnel Costs			
Total Existing Personnel Costs—Reassigned or Existing	**$91,838**	**$94,593**	**$97,431**
Personnel—New Positions			
Faculty	$10,000	$20,000	$30,000
Administrators *(other than instruction time)*			

Graduate Assistants			
Support Staff for Administration (*e.g., secretarial*)			
Fringe Benefits *(total for all groups)*	3,500	$7,000	$10,500
Other Personnel Costs			
Total Existing Personnel Costs—New Positions	**$13,500**	**$27,000**	**$40,500**
Start-Up Costs—One-Time Expenses			
Library/Learning Resources			
Equipment/Technology			
Physical Facilities: Construction or Renovation			
Other			
Total Start-Up Costs			
Operating Costs—Recurring Expenses			
Supplies/Expenses	$2,000	$3,500	$3,500
Library/Learning Resources			
Equipment/Technology			
Travel			
Other			
Total Operating Costs	**$2,000**	**$3,500**	**$3,500**
GRAND TOTAL COSTS	**$107,338**	**$125,093**	**$141,431**

B. FUNDING SOURCES	**Current**	**First FY (New)**	**Second FY (New)**	**Third FY (New)**
Tuition/State Funds		$130,060	$383,630	$680,300
Student Fees		$26,096	$68,435	$121,209
Other Sources				
GRAND TOTAL FUNDING		**$156,156**	**$452,065**	**$801,509**
C. Projected Surplus/Deficit (+/–) (Grand Total Funding *minus* Grand Total Costs)		**$48,818** (surplus)	**$326,972** (surplus)	**$660,078** (surplus)

Based on full-time students taking 9 credits in Fall, 9 credits in Spring, and 3 credits in summer the first year, and 9 credits in Fall and 3 credits in Spring in the second year for a total of 33; and part-time students taking 6 credits in Fall and 3 credits in Spring for three years and then taking the last 6 credits in fall of year 4 for a total of 33.

X. Expenditures and Funding Sources Explanations

A. Expenditures

Personnel – Reassigned or Existing Positions

Year 1	The previous table listing Core Faculty was used to multiply faculty salaries by the faculty FTE devoted to the new program. Note that this merely represents a slight reorganization as this cost is latent. Note that all of these faculty have their primary teaching responsibilities in their home departments, and the courses that they teachfor this program are already being taught.
	Administrator is calculated as 5% of the Associate Dean for Graduate Program's salary (again, a latent cost).
	Fringe is calculated based on current WSU fringe rates.
Year 2	Accounting for raises, all salary costs are increased by 3%.
Year 3	Accounting for raises, all salary costs are increased by another 3%.

Personnel – New Positions

Year 1	10% effort of a new faculty member's salary + fringe is budgeted.
Year 2	A second 10% effort of a new faculty member's salary + fringe is budgeted (plus costs carried over from year 1).
Year 3	A third 10% effort of a new faculty member's salary + fringe is budgeted (plus costs carried over from years 1 and 2).

Start-up Costs – One-Time Expenses

Years 1–3	Given that the proposed program is based on existing courses, no one-time start-up costs are necessary.

Operating Costs – Recurring Expenses

Year 1	Consumable office supplies are estimated at $2,000.
Year 2	Consumable office supplies are estimated at $3,500.
Year 3	Consumable office supplies are estimated at $3,500.

B. Revenue: Funding Sources

Revenue is calculated based on the projected enrollment from the table in Section V. In-state graduate tuition of $307.98/CH is calculated for 60% of the full-time student credit hours, whereas given the large number of international students expected to be interested in this program, out-of-state tuition of $756.38/CH is calculated for the remainder of the full-time credit hours. All part-time student credit hours are calculated using the in-state rate.

Students pay mandatory and student support fees on a semester basis and the fee is based on the number of credit hours they take in each semester. For the student support fees, the full-time students (7 or more credit hours) pay $679.18 for fall and spring semesters and $339.60 for summer semester. The part-time students (4 – 6.75 credit hours) pay $452.78 for fall and spring semesters and $226.40 for summer semester. And the student support fees for up to 3.75 credit hours are $226.40 in fall and spring semesters and $113.21 for summer. The other mandatory fees are calculated at a rate of $7.75/CH, which includes the campus infrastructure and support fee ($6/CH), the campus technology fee ($1/CH), and the campus transportation fee ($0.75/CH). Funding will be allocated through existing resources in the College of Engineering.

C. Projected Surplus/Deficit

A modest surplus is projected in year 1 ($48.8K), which increases to healthy surpluses in years 2 and 3 ($326.9K and $660K, respectively).

XI. References

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KU THE UNIVERSITY OF KANSAS
Office of the Provost

TO: Daniel Archer, Vice President for Academic Affairs
Kansas Board of Regents

FROM: Barbara A. Bichelmeyer
Provost & Executive Vice Chancellor

DATE: July 7, 2021

RE: Request to Change the Name of Four Degrees

The University of Kansas requests to change the name of graduate degrees within the Department of Civil, Environmental, & Architectural Engineering (CEAE) in the School of Engineering. Per an approved vote of the faculty of the CEAE Department and approval of the Engineering Dean, I respectfully submit the following name change requests:

- M.S. and Ph.D. in Environmental Engineering to M.S. and Ph.D. in Environmental and Water Resources Engineering, and
- M.S. and Ph.D. in Environmental Science to M.S. and Ph.D. in Environmental and Water Resources Science.

The rationale for the name changes reflects the merger of the Environmental and Water Resources groups within the CEAE Department. As part of this integrated program, the combined faculty have agreed on a common framework for the graduate degree programs at the M.S. and Ph.D. levels. Changing the official names of these graduate degrees better reflects the greater diversity of research and areas of study present in the combined program, and the increased ability of students to select a course of study that draws from both traditional Environmental and Water Resources topics. This change is also consistent with the naming conventions for similar programs at comparable and aspirational schools, including the University of Texas at Austin, Virginia Tech, and the University of Massachusetts Amherst, to name a few. The proposed change also reflects the approach taken nationally by the American Society of Civil Engineers where the programs are combined within the society's Environmental and Water Resources Institute.

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KU THE UNIVERSITY OF KANSAS
Office of the Provost

TO: Daniel Archer, Vice President for Academic Affairs
Kansas Board of Regents

FROM: Barbara A. Bichelmeyer
Provost & Executive Vice Chancellor

John Colombo, Interim Dean
College of Liberal Arts & Sciences

DATE: July 13, 2021

RE: Request to Merge Undergraduate Degrees in the Classics Department and to Change the name of the M.A. Degree

The University of Kansas requests to make the following changes within the Classics Department in the College of Liberal Arts & Sciences. Per an approved vote of the faculty of the Classics Department, we respectfully submit the following requests:

- Merge the B.A./B.G.S. in Classics & Classical Languages with the B.A./B.G.S.in Classical Antiquity to form the B.A./B.G.S. in Classics.

  In response to KBOR's Strategic Program Alignment Review undertaken in AY 2021, the university is seeking to merge the Classical Languages program with the Classical Antiquity program to form a single Classics program. The merged program in Classics will offer five different concentrations that reflect the department's inherent interdisciplinarity and allow students the flexibility to pursue – and demonstrate– different purposes. Concentrations will be available in Classical Languages, Classical Antiquity, Classical Humanities, Archaeology and Art, Greek, and Latin.

  The new structure facilitates double-majoring across the university and the department also added an option in the merged Classics major that does not require language study. This may attract additional students in related fields (e.g., History of Art, History) to a double major in Classics and may even enable students with very different academic programs (e.g., engineering, fine arts) to add a Classics major. A BGS or languageless option will also appeal to students who find the major later in their time at KU.

- Change the name of the M.A. in Classics & Classical Languages to M.A. in Classics.

  Changing the name of the M.A. will create consistency among all degree programs in the department.

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MEMORANDUM

To: Dr. Daniel Archer, Vice President for Academic Affairs – Kansas Board of Regents
From: Dr. George Arasimowicz, Provost & Vice President for Academic Affairs, Emporia State University
Date: June 9, 2021
Re: Department of Psychology and Department of Instructional Design and Technology
Name Change

The request is to approve a name change for two merged departments. The Department of Psychology and the Department of Instructional Design and Technology have been merged into a single department under a single department chair. The request is to name the newly formed department the *Department of Psychology, Learning Science, and Instructional Technology*.

Rationale: The previous chair for the Department of Instructional Design and Technology has served as the Associate Dean for The Teachers College since fall 2019. The department has had an interim chair for the past two years, who also serves as the chair for the Department of Psychology. As part of the budget reduction that occurred during spring 2021, The Teachers College made the decision to merge the two departments under a single chair and administrative assistant as a cost saving measure allowing one chair position and one administrative position to be eliminated from the college's budget.

The fields of psychology and instructional design and technology share foundations in educational psychology and learning theory. Thus, there is some connection between these two fields. Thus, a department merger makes sense for these areas. Input from the department chair and faculty were sought on the name change. All agreed to the new title.

KANSAS STATE UNIVERSITY | Office of the Provost and Executive Vice President

August 24, 2021

Daniel Archer
Vice President, Academic Affairs
Kansas Board of Regents
1000 SW Jackson St., Ste. 520
Topeka, KS 66612

Dear Mr. Archer:

I am writing to request approval for changing the name of a degree program.

We request changing the name of our Bachelor of Science in General Human Ecology to Integrative Human Sciences. This name change reflects a greater connection with the mission and name of the College of Health and Human Sciences, which as you know was recently changed. This change also aligns with national changes in designation for similar academic programs. This will assist in the legibility of this degree for our graduates going into the work force, professional programs, and graduate work. The curriculum has been altered to better align with similar programs nationally. The name change has received the appropriate internal approvals to change the degree name. As such, we formally request approval to change the name of the degree to be the *B.S. in Integrative Human Sciences*.

I approve the name change. Please let us know if you have any questions.

Sincerely,

Charles S. Taber
Provost and Executive Vice President

cc: Craig Harms, Interim Dean, College of Health and Human Sciences
Tanya González, Acting Associate Provost for Institutional Effectiveness

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