KANSAS BOARD OF REGENTS COUNCIL OF CHIEF ACADEMIC OFFICERS

VIRTUAL MEETING AGENDA Wednesday, April 16, 2025 9:00 a.m. – 10:00 a.m. or upon adjournment of SCOCAO

The Council of Chief Academic Officers (COCAO) will meet at the Pittsburg State University Campus, Overman Student Center, Meadowlark Room 220, 302 E Cleveland Ave, Pittsburg, KS 66762. An in-person option will be available at the Curtis State Office Building at 1000 SW Jackson, Suite 530, Topeka, Kansas, 66612.

I.	Call to Order	Susan Bon, Chair	
	B. Approve Minutes from March 12, 2025	, Meeting	p. 3
II.	Council of Faculty Senate Presidents' Up	late Norman Philipp, PSU	
III.	First Reading		
	A. AAS in Feed and Food Manufacturing	Jesse Mendez, KSU	p. 6
	B. BS in Nuclear Engineering	Jesse Mendez, KSU	p. 29
IV.	Second Reading		
	A. BBA in Supply Chain Management	Susan Bon, PSU	p. 38
	B. BS in Industrial Distribution	Susan Bon, PSU	p. 48
	C. MEd Applied Behavioral Analysis	Monica Lounsbery, WSU	p. 58
	D. MS in Forensic Biology	Monica Lounsbery, WSU	p. 69
	E. MS in Forensic Firearms	Monica Lounsbery, WSU	p. 78
V.	Other Matters		
	A. Request to Change Name of BA in Eng	lish to BS in English Susan Bon, PSU	p. 101
	B. Faculty & Staff Tuition Proposal Follo	w-up Norman Philipp, CoFSP	-
	C. Discuss Opportunities (new degree pro strategic initiatives, etc.) that Universit	grams, partnerships, COCAO Members ies are Considering or	
	Fianning to Fursue in the Future		

VI. Announcements

Next COCAO Meeting – May 14, 2025 – Virtual Meeting

VII. Adjournment

COUNCIL OF CHIEF ACADEMIC OFFICERS

The Council of Chief Academic Officers (COCAO), 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:

Jesse Mendez	K-State	Susan Bon, Chair	PSU
Brent Thomas	ESU	John Fritch	Washburn
Jill Arensdorf	FHSU	Monica Lounsbery	WSU
Barbara Bichelmeyer	KU	Rusty Monhollon	KBOR
Robert Klein	KUMC		

Council of Chief Academic Officers

AY 2025 Meeting Schedule

COCAO Academic Year 2024- 2025 Meeting Dates					
Meeting Dates	Location (virtual or in-person)	Institutional Materials Due	New Program Requests Due		
September 18, 2024	Virtual	August 28, 2024	July 24, 2024		
November 20, 2024	Kansas State University	October 30, 2024	September 25, 2024		
December 18, 2024	Virtual	November 25, 2024	October 21, 2024		
January 15, 2025	Virtual	December 24, 2024	November 19, 2024		
February 12, 2025	Virtual	January 22, 2025	December 18, 2024		
March 12, 2025	Virtual	February 19, 2025	January 15, 2025		
April 16, 2025	Pittsburg State University	March 26, 2025	February 19, 2025		
May 14, 2025	Virtual	April 23, 2025	March 19, 2025		
June 11, 2025	Virtual	May 21, 2025	April 16, 2025		

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

KANSAS BOARD OF REGENTS COUNCIL OF CHIEF ACADEMIC OFFICERS MINUTES MARCH 12, 2025

Chair Susan Bon called to order the March 12, 2025, meeting of the Council of Chief Academic Officers at 9:16 a.m. The meeting was held virtually through Zoom with an in-person option held in Suite 530 located in the Curtis State Office Building, 1000 S.W. Jackson, Topeka, KS 66612.

MEMBERS PRESENT:

Jesse Mendez, KSU	Barbara Bichelmeyer, KU	Monica Lounsbery, WSU
Brent Thomas, ESU	Susan Bon, PSU	Rusty Monhollon, KBOR (ex officio)
Jill Arensdorf, FHSU	John Fritch, Washburn	

APPROVAL OF MINUTES

Monica Lounsbery moved that the minutes of the February 12, 2025, meeting be approved. Jill Arensdorf seconded, and the motion carried unanimously.

COUNCIL OF FACULTY SENATE PRESIDENTS UPDATE

Council of Faculty Senate Presidents Chair Norman Philipp provided an update on two bills currently in the legislature. First, he discussed HB 2348, on which the Council of Faculty Senate Presidents has issued an opposition statement. This bill is currently in the House Judiciary Committee. Next, he addressed SB76, the Given Name Act. After researching the matter, it was found that this issue affects less than one percent of students on the Pittsburg State University campus and three percent when including dual enrollment students. Consequently, the Council of Faculty Senate Presidents will likely not act on this matter.

FIRST READING

BBA IN SUPPLY CHAIN MANAGEMENT

Susan Bon introduced Paul Grimes, Dean of the College of Business, and Andy Klenke, Director of the School of Technology at PSU. Paul Grimes shared that the program is proposed in cooperation with the College of Technology and the Industrial Distribution program. Both programs will share the same General Education package and major courses in supply chain and distribution. Students earning the BBA will take the basic business package of courses, and the Industrial Distribution students will take the basic package of technology courses. The programs require adding two new courses, one in business and one in technology.

BS IN INDUSTRIAL DISTRIBUTION

Andy Klenke added that this program will provide students with hands-on learning opportunities and expand job opportunities through collaboration with the School of Business.

MED APPLIED BEHAVIORAL ANALYSIS

Dr. Angela Beeler, Psychology Program Coordinator for Wichita State University, shared that this degree would be a total of 36 credit hours, with 21 currently offered. Three new courses will be created without the need for faculty changes. This program will better accommodate students needing a master's degree to sit for their Board Certified Behavior Analyst (BCBA) exam. The need for BCBA's has increased both in Kansas and the rest of the nation.

MS IN FORENSIC BIOLOGY

Monica Lounsbery introduced David Eichorn, Dean of the College of Liberal Arts and Sciences at WSU, and Dr. Yumi Suzuki, Interim Program Director for Forensics at WSU. Dr. Suzuki shared that the School of Criminal Justice and the Forensic Science program have experienced substantial growth over the past ten years. WSU anticipates student interest in forensic science, criminal justice, anthropology, biology, and chemistry. Both the Forensic Biology and Forensic Firearms (see below) programs will partner with the ATF Center of Excellence Lab.

MS IN FORENSIC FIREARMS

Dr. Yumi Suzuki shared that this program will have a traditional track, a track for trainees currently working in firearms departments for law enforcement agencies and a firearms examiner track for certified firearms examiners pursuing a graduate degree. A director will be hired to lead the Forensic Biology program and a faculty coordinator for the Forensic Firearms program. Courses will be taught by professionals in their respective fields.

SECOND READING

PHD IN EDUCATION & BEHAVIORAL ANALYSIS

Monica Lounsbery stated the title should be corrected to PhD in Education & Behavioral Studies. She introduced Jennifer Friend, Dean of the College of Applied Sciences, and Dr. Philip Mullins, Associate Professor of Counseling at WSU. Dr. Mullins shared that this program will have concentrations in Clinical Mental Health Counselor Education and Educational Psychology. The goal is to prepare graduate students for leadership roles in academia, clinical supervision, and applied research. This is a 60-credit-hour program with 30 core shared credits and 30 specialty credits. The external review found that the program addresses a critical shortage of professionals in these concentrations. Community leaders support the program for its flexibility, research-driven approach, and utilization of existing resources. Monica Lounsbery moved to approve the PhD in Education & Behavioral Studies at WSU. Jill Arensdorf seconded, and the motion carried unanimously.

BS IN NUTRITION

Barbara Bichelmeyer provided an overview of the proposal, noting that KSU is working on a complementary program at the KSU Olathe campus. She introduced Stuart Day, Dean of the School of Professional Studies at the University of Kansas, who added that this program will attract students from surrounding states.

Jesse Mendez moved to approve the BS in Nutrition at KU. Brent Thomas seconded, and the motion carried unanimously.

OTHER MATTERS

FACULTY & STAFF TUITION PROPOSAL FOLLOW-UP

Norman Philipp shared data regarding the tuition assistance programs at KBOR institutions. He emphasized that while faculty and employee tuition assistance is available at all KBOR institutions, post-master's opportunities are not equal across the state. A unified policy is being proposed to allow faculty and staff to apply tuition assistance benefits to any program of study offered by a KBOR university.

The data shows that utilization of tuition assistance programs is highest at KSU and WSU, with 10 percent and eight percent of faculty and staff utilizing the program, respectively. Other KBOR institutions have a utilization rate of three to four percent. A survey sent to KBOR institution employees indicates increased interest in a KBOR-wide tuition assistance program if implemented within the next 10 years. The majority of those surveyed believe that implementing this program will enhance employee retention and recruitment. A rollout plan is suggested in three phases:

- Phase One: Online programs only.
- **Phase Two**: Expand to include hybrid programs.

• Phase Three: Expand to include in-person programs.

Two possible financial models are proposed:

- Scholarship Model: The employee receives approval, and the employing institution provides the value of its tuition assistance (TA) program to the providing institution.
- **Reimbursement Model**: The employee enrolls in the course and pays tuition. Upon course completion, the employing institution reimburses the value of its TA program to the employee.

Monica Lounsbery expressed appreciation for the effort and the research behind this proposal. Barbara Bichelmeyer suggested clarifying that the employee will pay the difference in tuition between the employing institution and the providing institution. She also suggested considering a cap on credit hours.

FACULTY OF THE YEAR AWARD POLICY UPDATE

Director for Academic Affairs Sam Christy-Dangermond shared an update to the policy revision, in the second sentence of the second paragraph, which now states that "The president or chancellor of each state university and KUMC shall annually identify **one** staff member at each state university and KUMC." This change will go to Governance and is on the full Board agenda for this month's meeting.

ANNOUNCEMENTS

Chair Susan Bon reminded the group that the next COCAO meeting will be held on April 16 at Pittsburg State University.

ADJOURNMENT

Barbara Bichelmeyer moved that the meeting be adjourned. Monica Lounsbery's seconded, and the motion carried. The meeting adjourned at 10:24 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 has responded to all of the requirements of the program approval process.

April 16, 2025

I. General Information

A. Institution

Kansas State University

B. Program Identification

Degree Level:	Associate
Program Title:	Food and Feed Manufacturing
Degree to be Offered:	Associate of Applied Science
Responsible Department or Unit:	College of Agriculture/Department of Grain Science and Industry
CIP Code:	1.1002 Food Technology and Processing
Modality:	Hybrid
Proposed Implementation Date:	Fall 2025

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

The demand for a skilled workforce to fill supervisory, operational, and technical roles in the milling, baking, feed, and pet food industries is immense, and no other institution in the United States is meeting this need comprehensively. Currently, Kansas State University trains leaders for these industries. However, the creation of an Associate of Applied Science (AAS) degree in food and feed manufacturing would directly address the industry's labor shortages by providing practical, targeted education.

This program would serve two important demographics. First, it would offer a pathway for existing industry professionals seeking to enhance their knowledge and skills while maintaining their current employment. With the flexibility of an online AAS program and core courses designed as five-week online courses or one-week in-person practicums, these professionals can advance their careers with minimal disruption to their work schedules. Second, the program would appeal to students who prefer to enter the workforce quickly through a two-year technical degree, rather than pursuing a traditional four-year degree. These graduates would be well-prepared to step into the workforce immediately, filling critical roles in feed manufacturing and related fields.

Having more educated and highly qualified employees directly benefits the industry. A more skilled workforce leads to greater operational efficiency, innovation, and overall success for companies in this sector.

IV. Program Demand

A. Survey of Student Interest

A survey was not conducted to address student demand. However, an industry survey was conducted to seek guidance on the development of this program. The survey received 78 responses across the Feed, Pet Food, Milling, Baking, and Grain Elevator industries. The industry response provided support for this program in

training areas of industry knowledge, quality, management, leadership, equipment identification/operation, basic/applied math, ingredient identification, written communication, oral communication, computer application, data management, supervision, employee safety, regulatory, equipment & facility maintenance, food/feed safety. See Appendix I for industry support letters.

B. Market Analysis

The industry market analysis report was conducted by the K-State Market Intelligence & Analysis Team. The data in this report is from LightcastTM, a labor market analytics company that curates and maintains comprehensive labor market data sets. The degree completion data are from IPEDS, reported by CIP code. Labor data is from Quarterly Census of Employment Wages from the Bureau of Labor Statistics and Bureau of Economic Analysis. The regions analyzed include: Arkansas, Colorado, Illinois, Iowa, Kansas, Missouri, Nebraska, Oklahoma, and Texas. To provide further analysis in food and feed manufacturing, we used five metrics:

- Regional Unique Job Postings (2019-2023)
- Projected Industry Growth (2023-2032) Top Ten Job Titles (2023)
- Top Ten Companies by Unique Job Postings (2023)
- Example Job Postings with Company, Location, and Salary Information (2023)

The five industries reviewed are:

- 1. Grain Processing Industry
- 2. Flour and Grain Milling Industry
- 3. Feed Industry
- 4. Baking Industry
- 5. Pet Food Industry

Completions for associate-level programs in grain/feed processing increased nationwide from 2013 to 2022 (IPEDS). Nationally, total completions fluctuated but increased over 350% during that time. Outside of 2016, there were zero online program completions nationwide and within the nine-state region. Although total nationwide completions are growing, the same is not true for the nine-state region (Arkansas, Colorado, Illinois, Iowa, Kansas, Missouri, Nebraska, Oklahoma, Texas) which decreased 66.7% from 2013 to 2022. In 2022, associate degrees accounted for 27 completions, while there were 56 bachelor's completions and 86 awards of less than one year. Only one institution in Kansas, Garden City Community College, reported associate degree completions in 2022 under the 01.0401 CIP code.

Job postings were filtered to include data on Feed Mill Operators, Feed Mill Managers, and Feed Mill Supervisors, the three job titles that we found were most relevant. The nationwide job postings growth for these positions has been over 41% since 2019, but the overall number of jobs is not very high. Feed Mill Operators was the job title with the most postings, tallying 493 last year. Feed Mill Operators also had the largest percent growth (66.6%) in postings from 2019 to 2023. The top employers recruiting for these types of positions include cattle feeders and large companies in the food industry like Tyson Foods, Con Agra, and Smithfield Foods.

A data point of note is that Iowa had the most job postings in the U.S. in 2023, with the rest of the Central U.S. showing demand for these workers, as well. Some of the top requested skills within job postings include agriculture, milling, warehousing and automation. A few of the top growing skills from 2023 revolve around workplace safety. They included hazard analysis and critical control points, preventative maintenance, and safety culture.

There were no associate degrees in grain science, milling, or a combination of the two in the market research scan of similar programs in the nation. The list of similar programs includes three certificates, one minor, and a Career Studies Certificate program. Of these five programs, four of them are in feed milling and only one is offered online. Based on this scan, there is little to no competition in the associate's degree programs in grain or milling science.

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

Year	Total Headcount Per Year		Total Sem Credit Hrs Per Year	
	Full- Time	Part- Time	Full- Time	Part- Time
Implementation	10	20	150	120
Year 2	20	30	300	180
Year 3	35	40	525	240

VI. Employment

Data from the K-State Market Intelligence & Analysis team using Lightcast Analyst tool determined the current employment opportunities for Unique Job Postings within a 9-state region from 2019-2023. Unique job postings were searched for soybean and other oilseed processing, fats and oils refining and blending, flour milling, rice milling, wet corn milling, breakfast cereal manufacturing, animal food manufacturing, dog or cat food manufacturing, bread and bakery product manufacturing. Across these unique job postings within a 9-state region there were 1,074 jobs posted in 2023.

- For the grain processing industry (soybean and other oilseed processing and fats and oils refining and blending), in 2023 there were 80 total unique postings with +122.2% change in 5-year regional postings and a median salary of \$64,800. Example employment opportunities included industrial technicians and operations assistant.
- For the flour and grain milling industry (flour milling, rice milling, wet corn milling, breakfast cereal manufacturing), in 2023 there were 111 total unique postings with +311% change in 5-year regional postings and a median salary of \$58,900. Example employment opportunities included maintenance technician-millwright and maintenance control specialist.
- For the feed industry (animal food manufacturing), in 2023 there were 459 total unique postings with +59.4% change in 5-year regional postings and a median salary of \$59,600. Example employment opportunities included Millwright/maintenance mechanic, processing technician, and laboratory technician.
- For the pet food industry (dog or cat food manufacturing), in 2023 there were 124 total unique postings with +359.3% change in 5-year regional postings and a median salary of \$57,300. Example employment opportunities included filler operator, laboratory technician, and automation controls technician.
- For the baking industry (bread and bakery product manufacturing), in 2023 there were 300 total unique postings with +10% change in 5-year regional postings and a median salary of \$64,300. Example employment opportunities included production supervisors, maintenance lead, mechanical/electrical technician.

VII. Admission and Curriculum

A. Admission Criteria

Qualified Admission criteria are used, as this program does not have separate admission requirements.

B. Curriculum

The 61-credit AAS in Food and Feed Manufacturing program is designed to equip students with the knowledge and skills necessary for a successful career in the grain, food, and feed industries. The curriculum prepares learners for both entry-level and supervisory positions in these rapidly advancing sectors. In addition to offering a solid technical foundation in areas such as ingredient purchasing, equipment maintenance, and operation, and facility oversight, the program emphasizes invaluable hands-on learning experiences.

This curriculum accommodates two types of learners: 1) current industry professionals seeking to earn their degree online while maintaining their jobs, and 2) traditional students aiming to complete a two-year technical degree to quickly enter the food and feed manufacturing or grain processing workforce. To support

these diverse needs, core classes are structured in 5-week, one-hour modules, allowing for greater flexibility.

Beyond technical training, our curriculum addresses additional skills that industry surveys indicate employers seek in candidates. Applied skills and professional specialization are emphasized, particularly through courses focusing on employee safety, food and feed safety, computer applications, and specialized areas relevant to food and feed manufacturing, including agronomy, animal science, agricultural safety, mechanical systems, entomology, food science, and others. Flexibility is also built into the specialization electives to allow for high school students to take advantage of completing targeted courses for free while in high school to help meet degree requirements. The flexible "Specialization Electives" component reflects the diverse areas within modern food and feed manufacturing, ensuring that our approach is tailored to the various career possibilities available to AAS graduates.

The program requires a total of 18 credits in core Food and Feed Manufacturing (FFM) major courses, supplemented by three sections within the major support courses: 9 credits focused on specialization, 6 credits dedicated to major support (computer applications and employee safety), and 12 credits in management electives. The content needed for the 18 credit hours of core FFM major courses currently resides within the Department of Grain Science and Industry at Kansas State University. This content will be retooled for online delivery and to focus on the key pieces of technical education needed for this target audience.

Recognizing the importance of business operations and management skills, we require students to complete 12 credits in "Management Electives." Additionally, effective communication and applied mathematics are critical skills sought by employers, leading to requirements in the KBOR general education curriculum, including courses in English, Communication, and Math.

The remaining credits consist of 4-5 credits in Natural Science and Physical Sciences and 3 credits in Arts and Humanities or Social and Behavioral Science, providing a well-rounded education. These courses lay a solid foundation in basic science and the humanities while allowing students to explore a wide range of topics that can significantly influence their career trajectories.

In addition to the AAS FFM degree, FFM certificates will be in place by Fall 2025. These certificates are designed to provide students with a credential they can present to employers even before completing their associate's degree. This is particularly valuable for students who may need to pause their education or want to demonstrate their skills to prospective employers partway through their studies. Additionally, all course requirements for the certificate will apply directly toward the completion of the Associate of Applied Science (AAS) degree. Offering these certificates, along with free high school courses through Excel in CTE (formerly SB155) and Career Clusters and Pathway: Ag Technology and Mechanical Systems (proposed to be transferable to K-State as 3 credits of AGTEC 111), strengthens the stackable credential pathway (see Appendix II), recognized by the Kansas Board of Regents (KBOR), helping students build their academic and professional profiles step-by-step. For the non-traditional place-bound student, we also hope to develop microcredentials in the future that will not only enhance skills in their current position through professional development, but that will also provide a pathway of stackable credentials (see Appendix III) that could lead to a certificate or ultimately an associate's degree.

Year 1: Fall	SCH = Semest	ter Credit Hours
Course # Course Name		SCH
	K-State CORE 1 – English - Select 1 course from the list (i.e.	3
CORE 1	ENGL 100 - Expository Writing I)	
	K-State CORE 3 - Mathematics & Statistics - Select 1 course	3
CORE 3	from the list (i.e. STAT 225 - Intro to Statistics)	
ASMS 120	Intro to Food & Feed Manufacturing Employee Safety	1
ASMS 220	Employee Safety in Grain Handling Facilities	1
ASMS 221*	Safety Applications Practicum	1
FFM 101	Orientation to Food & Feed Manufacturing	1

FFM 110	Intro to Grain & Food Manufacturing Industries	1	
FFM 111	Intro to Feed & Pet Food Manufacturing Industries	1	
FFM 120	Ingredient ID & Quality: Cereal Grains	1	
FFM 121	Ingredient ID & Quality: Oil Seeds & Legumes	1	
FFM 122	Ingredient ID & Quality: Co-products & Additives	1	
Select 1 course:			
FFM	Practicum: Intro to Milling/Intro to Baking/Intro to Feed & Pet	1	
159*/169*/179*	Food		

Year 1: Spring		
Course #	Course Name	SCH
	K-State CORE 2 - Communication - Select 1 course from the	3
CORE 2	list (i.e. COMM 106 - Public Speaking I)	
CORE 5 or	K-State CORE 5 - Social & Behavioral Science or K-State	3
CORE 6	CORE 6 - Arts & Humanities - Select 1 course from the list	
CA Elective	Computer Applications Elective - ASI 290 or CIS	1-3
Select 1 group:		3
FFM	Milling: Preparing Grains/Milling Process/Milling Specialty	
150/151/152	Grains	
FFM	Baking: Bakery Ingredients/ Bakery Processes/Baking	
160/161/162	Products	
FFM	Feed & Pet Food: Feed Processing/Pet Food Processing/	
170/171/172	Finished Feed and Pet Food Quality Assurance	
Specialization	See Departmental List**	3
Elective Course		

Year 2: Fall

Course #	Course Name	SCH
	K-State CORE 4 - Natural & Physical Sciences - Select 1	4
	course, with lab, from the list (i.e. AGRON 120 & 121, Crop	
CORE 4	Science)	
LEAD 212 or	Introduction to Leadership Concepts or Principles of	3
MANGT 220	Management	
FFM 210	Food & Feed Manufacturing Equipment Maintenance	1
Select 1 course:		
FFM	Maintenance Programs: Milling Specific/Baking Specific	1
215/216/217	/Feed & Pet Food Specific	
Select 1 course:		
FFM	Equipment Maintenance Practicum: Milling/Baking/Feed	1
225*/226*/227*		
Specialization	See Departmental List**	3
Elective Course		
Management	See Departmental List**	3
Elective Course		

Year 2: Spring

Course #	Course Name	SCH
FFM 250	Advanced Food & Feed Manufacturing Management	1
Select 1 course:		

FFM	Advanced Management: Milling/Baking/Feed & Pet Food	1
251/261/271		
Select 1 course:		
FFM	Advanced Manufacturing Management Practicum:	1
252*/262*/272*	Milling/Baking/Feed & Pet Food	
FFM 280	Intro to Food & Feed Safety	1
Select 1 course:		
FFM 285/287	Food Safety Principles in Milling and Baking/Advanced Feed	1
	& Pet Food Safety	
Specialization	See Departmental List**	3
Elective Course		
Management	See Departmental List**	3
Elective Course		
Management	See Departmental List**	3
Elective Course		
Free Electives	If needed to reach 60 total hours	0-2

** Departmental List:

** Departmental Li	st:			
N	Aanagement Electives:	12		
Select 1 Course:				
LEAD 212	Intro to Leadership Concepts	3		
MANGT 220	Principles of Management	3		
Select 9 Hours:				
ACCTG AGEC BUS ENTRP FINAN LEAD MANGT				
MIS MKTG SALES				
S	pecialization Electives:	9		
Select 9 Hours:				
AGRON AGTEC ASI ASMS ATM ECET ENTOM FDSCI FFM FNDH				
	GRSC IMSE MET			

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
Dr. Chad Paulk***	Associate Professor	Ph.D.	Y	Feed Science, Monogastric Nutrition, Ingredient Quality and Safety	0.17
New Program Coordinator	Instructor	TBD	Ν	Online Course Delivery	1.0
Jason Watt	Instructor	B.S.	N	9 years of experience in milling education and 7 years of practical milling industry experience	0.17
Aaron Clanton	Instructor	M.B.A.	Ν	5 years experience teaching	0.04

				at K-State and 20 years experience in the bakery industry and 13 years experience teaching all aspects of the AIB Internationals baking curriculum.	
Fran Churchill	Instructor	M.S.	N	12 years of experience in milling education and 20 years of practical milling industry experience	0.13
Huseyin Dogan	Instructor	B.S.	N	Associate Engineer, 21 years experience teaching for the Department of Grain Science. Mechanical Engineer with 30 years experience in project management, design, power distribution, and trouble shooting.	0.08
Dr. Julia Pezzali	Assistant Professor	Ph.D.	Y	Pet Food Processing, Pet Food Nutrition	0.04
Paul Blodget	Instructor/Flour Mill Manager	B.S.	Ν	Current Instructor and Program Manager of Hal Ross Flour Mill. Over 20 years of practical milling experience	0.21
Dr. Mitch Ricketts	Professor	Ph.D.	Y	Agriculture Safety and Health; Board Certified Safety Professional, with over 30 years of experience in safety, health, and environmental management	0.10
Bakery Science Faculty	TBD	TBD	Y/N	A core Bakery Science Faculty member will have FTE repartitioned to account for this additional teaching responsibility.	0.29
Feed Science Faculty	TBD	Ph.D.	Y	A core Feed Science Faculty member will have FTE repartitioned to account for this additional teaching responsibility.	0.21
Pet Food Science Faculty	TBD	Ph.D.	Y	A core Pet Food Science Faculty member will have FTE repartitioned to account for this additional teaching responsibility	0.08

IX. Expenditure and Funding Sources

A. EXPENDITURES		First FY	Second FY	Third FY
Personnel – Reassigned or Existing Position	IS			
Faculty	\$104,000			
Administrators (other than instruction time)			\$65,000	\$65,000
Graduate Assistants				
Support Staff for Administration (e.g., secreta	rial)			
Fringe Benefits (total for all groups)			\$21,450	\$21,450
Other Personnel Costs				
Total Existing Personnel Costs – Reassigned	or Existing	\$104,000	\$86,450	\$86,450
Personnel – New Positions				
Faculty				
Administrators (other than instruction time)		\$65,000		
Graduate Assistants				
Support Staff for Administration (e.g., secreta	rial)			
Fringe Benefits (total for all groups)		\$21,450		
Other Personnel Costs				
Total Existing Personnel Costs – New Positions		\$86,450		
Start-up Costs - One-Time Expenses				
Library/learning resources				
Equipment/Technology				
Physical Facilities: Construction or Renovation	on			
Other				
Total Start-up Costs				
Operating Costs – Recurring Expenses				
Supplies/Expenses		\$12 500	\$12 500	\$12 500
Library/learning resources		\$12,500	\$12,500	\$12,500
Equipment/Technology				
Travel				
Other		\$103,700	\$103,700	\$103,700
Total Operating Costs		\$116,200	\$116,200	\$116,200
GRAND TOTAL COSTS		\$306,650	\$202,650	\$202,650
B. FUNDING SOURCES	Current	First FY	Second FY	Third FY
(projectea as appropriate)	Current	(INew)	(New)	(New)
Tuition / State Funds		\$109,291	\$194,294	\$309,657
Student Fees				
Other Sources				

GRAND TOTAL FUNDING	\$109,291	\$194,294	\$309,657
C. Projected Surplus/Deficit (+/-) (Grand Total Funding <i>minus</i> Grand Total	- \$197,359	- \$8,356	\$107,007
Costs)	* · · ·)- · ·	+ -)	÷ · ·) · · ·

X. Expenditures and Funding Sources Explanations

A. Expenditures

Personnel – Reassigned or Existing Positions

The Department of Grain Science and Industry has 10 faculty with various extension and teaching responsibilities that adequately cover the diverse discipline. Therefore, all FFM course offerings are offered as part of current appointments. Percent time dedication varies with faculty member roles and ranges from 0.08 to 0.29 FTE.

- The First FY expense for \$104,000 will be designated to cover the summer salary of 3 tenured track professors who are on 9-month appointments for course development. These will be a one-time expense.
- A total of 3 tenured track professors and 5 instructors will be reassigned to AAS FFM courses. With addition of the new workload policy at Kansas State University, there are gaps in teaching load responsibilities for these faculty that can be used to meet the AAS teaching needs. In addition, current online service courses, such as GRSC 101, will be removed and restructured as FFM 110, 111, 120, 121, 122.

Personnel – New Positions

One Program Coordinator will be hired as an administrator and content manager for the AAS in Food and Feed Manufacturing. The annual salary for the Program Coordinator will be \$65,000. Fringe benefit of \$21,450 were calculated at the standard university rate of 30%.

Start-up Costs – One-Time Expenses

As previously defined, the one-time expense will be related to personnel. A total of 3 tenured track professors and 5 instructors will be reassigned to AAS courses. With addition of the new workload policy at Kansas State University, there are gaps in teaching load responsibilities for these faculty that can be used to meet the AAS teaching needs. In addition, current online service courses, such as GRSC 101, will be removed and restructured as FFM 110, 111, 120, 121, 122.

Operating Costs – Recurring Expenses

We also require funds for supplies/expenses associated with office materials, instruction, IT support, and promotion and marketing activities (\$12,500/yr). In addition, we will offer 10 practicum courses and this will require operation of the flour mill, baking lab, test kitchens, feed mill, and pet food processing labs. For each of these courses it will cost approximately \$10,000 in operations and supplies (total \$103,700 per year).

B. Revenue: Funding Sources

Student tuition revenue has been calculated at \$404.78/credit hour – the standard in-state tuition rate for undergraduate courses. The total number of credit hours per year is based on the projected enrollment and anticipated credit hours for full-time and part-time students.

Fiscal year	Total credit hours	Cost per credit hour	Total revenue
First FY	270	\$404.78	\$109,291

Second FY	480	\$404.78	\$194,294
Third FY	765	\$404.78	\$309,657

C. Projected Surplus/Deficit

The projected surplus by year three reflects the difference between Total Funding and Total Expenses.

XI. References

- U.S. Bureau of Labor Statistics. (n.d.) *Quarterly census of employment and wages*. Available from <u>https://www.bls.gov/cew/</u>
- U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS) (2022). Available from https://nces.ed.gov/ipeds/datacenter.

Appendix I



Dr. Kyle Coble Director of Nutritional Services JBS Live Pork, LLC Greeley, CO

August 18th, 2024

Associate of Applied Sciences (AAS) in Food and Feed Manufacturing Kansas State University Manhattan, KS

Dear Department and Faculty Member(s):

I am writing this letter in support of your proposed development of the academic program and curriculum for an Associates Degree of Applied Sciences (AAS) in Food and Feed Manufacturing. This extended learning opportunity for many in our industry is needed, desired, and essential to the continuation of adding skilled labor to the feed manufacturing workforce.

Nearly 4 years ago, Dr. Chad Paulk, Dr. Charles Stark, and I develop the "JBS Master Milling Course". It covers the areas of basic feed milling, quality control, maintenance and even some personal development in feed milling. This was developed out of necessity to create growth opportunities for our front-line workers who were thirsty for a chance to move up in the business and for a better future that would accompany them for their lives beyond.

This reality of need unfortunately came full force before the program was developed. Just weeks prior to moving this concept into a reality, an employee of mine whom had been at the company for 42 years at the same mill, even after building it, said "my father told me all I would ever be was a feed mill operator and that was all I ever was. No one ever cared enough to develop me or help me fulfill my potential in an industry I loved". While this person was proud of their tenure, they were not happy with the outcome of their career – it had become a job they did for decades. Only having overseen the Feed Operations for JBS Live Pork for less than a year and our company only owning that location for slightly longer, it shook me to the core. From that point forward, I vowed to never put our employees in that position and born was the JBS Master Milling Course.

The course overall has been a success, but it has not been without its challenges. While post graduate trained and completing a PhD, I am not a trained educator and at times the development has struggled to keep pace. The demands of an industry job tug at time and priorities to keep the business going versus personal development is a reality. Students need prompt replies and consistent engagement. When we have had up to 25 students across 3 classes at one time, they need a professional that is an educator in the area of milling science and a program whose focus and core is exactly what this AAS would provide. To top this all, even after a monetary bonus was provided for class completions, most did not want to do "without getting a college degree".

Selfishly, I cannot explain in words what this would mean to JBS Live Pork's Feed Milling Team. It would expand our established program into an option that students and industry professionals could carry on with and add academic merit to their futures that allow them to turn a job into a career. This program would be one of a kind in our industry, and no one is better at that than Kansas State Grain Science.

I thank you for reading this letter and hearing our position as you deeply consider the futures and careers of not only our employees, but the industry and families they are made of.

Sincerely, Kyle Coble

Dr. Kyle Coble

1770 Promontory Circle · Greeley, CO 80634 · 970-506-8000 · jbsfoodsgroup.com



November 1, 2024

Faculty and Administration Kansas State University Manhattan, KS 66506

RE: Support for the Associate of Applied Sciences (AAS) in Food and Feed Manufacturing

Dear Faculty and Administration,

We are writing to express our strong support for the proposed development of the Associate of Applied Science (AAS) in Food and Feed Manufacturing curriculum at Kansas State University. This initiative will provide opportunities for potential students looking to enter the grain milling industry as a future career.

As both the food and feed manufacturing sectors continue to grow, a significant need has emerged for professionals adept in both technical and operational sides of running a mill. The AAS program aligns with this demand and provides instruction and experience in grain milling, preparing a pool of skilled employees ready to contribute effectively early in their careers.

Hill's Pet Nutrition acknowledges the potential this program holds. By offering this targeted training, current and future employees will be able to bring expertise to mills throughout Kansas, reflective of the state's position as a grain production leader.



Furthermore, the program supports local economies by sustaining the long-term viability of Kansas-based grain mills and other related food and feed manufacturing businesses. It provides students with pathways to gain education and hands-on experience, retaining talent within the state and providing a continuous pipeline of skilled workers.

Thank you for your consideration of this addition to Kansas State University's educational offerings. We eagerly anticipate the success of the AAS in Food and Feed Manufacturing program and are confident in the substantial impact it will have on the industry.

Sincerely,



Nicholas L. Rozzi, Ph.D. Vice President, Product Development Hill's Pet Nutrition 1035 NE 43rd Street Topeka KS 66617



Dr. Chad Paulk Associate Professor Feed Science and Management in the Department of Grain Science and Industry Kansas State University Shellenberger 313 Manhattan KS, 66506

Proposed AAS in Food and Feed Manufacturing Program

Dear Dr. Paulk,

Founded in 1909, the American Feed Industry Association (AFIA), based in Arlington, Va., is the world's largest organization devoted exclusively to representing the business, legislative and regulatory interests of the U.S. animal food industry and its suppliers. The organization's membership is comprised of over 650 domestic and international companies that represent the total feed industry—manufacturers of commercial and integrated feed and pet food, ingredient suppliers, pharmaceutical companies, industry support and equipment manufacturers. AFIA's members manufacture more than 75% of the feed and 70% of the non-whole grain ingredients used in the country.

The AFIA was thrilled to hear that you are proposing to develop an Associate of Applied Sciences (AAS) in Food and Feed Manufacturing. An AAS degree in feed manufacturing will help meet some current needs in our industry labor requirements. There are existing industry professionals seeking to earn a degree online while maintaining their current employment. This type of program will help those individuals increase their knowledge base and advance their careers. There are also students that would like to complete a two-year technical degree and enter the workforce quickly rather than pursue a traditional four-year degree. The type of degree program that you are proposing to develop will help provide highly qualified potential employees to work in our feed manufacturing facilities. A more educated employee always equates to a more qualified employee. A more qualified labor force is good for our industry.

The AFIA whole-heartedly supports the development of this program!

Yours Sincerely,

ZarHuddletor,

Gary Huddleston Director of Feed Manufacturing and Regulatory Affair

Our Industry. Our Passion. Our Voice.

American Feed Industry Association • 2101 Wilson Blvd., Suite 810, Arlington VA 22201 USA T: (703) 524-0810 • F: (703) 524-1921 • afna@afna.org • afna.org



The Link Between Grain and Goodness

August 30, 2024

Department of Grain Science and Industry Kansas State University Suite 201 Shellenberger Hall 1301 Mid-Campus Dr Manhattan, KS 66506

Dear Department of Grains Science and Industry:

I am writing on behalf of the North American Millers' Association (NAMA) in support of the Kansas State University Department of Grain Science and Industry application to offer an Associate of Applied Science (AAS) in Food and Feed Manufacturing

NAMA represents millers of wheat, corn, oats, and rye across the continental United States, Puerto Rico, and Canada. Our members take raw grain and, through grinding and crushing, create flour and other products that are used to make favorite foods.

Kansas State University currently offers the only Bachelor of Science degree in milling in the United States. Our industry fully supports the current program, but we also recognize that the needs of today's learners and employers are broader than four-year degree programs.

As the only fully operational training center in the United States, Kansas State has a unique opportunity to utilize existing resources and staff to expand its mission and enrollment. Our hope is that currently working employees will be able to advance their careers by earning an AAS degree while working fulltime. The program would also offer students from Kansas and around the country specialized training for jobs with excellent compensation and professional growth opportunities.

The milling industry, like other manufacturers located in rural America, must look at new ways to expand our talent pipeline. An AAS in Food and Feed Manufacturing offered by Kansas State could play an important role in workforce development for the future.

Sincerely,

- B. Den

Jane DeMarchi President

1400 Crystal Drive, Suite 650 · Arlington, VA 22202

TEL: 202.484.2200 · namamillers.org · generalinfo@namamillers.org



October 4, 2024

Chad Paulk Associate Professor, Department of Grain Science and Industry Kansas State University

Dr. Paulk,

We appreciate the chance to express our support for the proposed Associate of Applied Science in Food and Feed Manufacturing (AAS). At Cargill, our values--do the right thing, put people first and reach higher--guide us in all aspects of our business. These values guide how we attract and retain the talent that we employ in our production facilities. We believe that it is in the best interest of our current and future team members to have access to a wide variety of educational opportunities. As we look at our talent in our food and feed production facilities, we recognize that not every supervisory and management position would require a traditional four-year degree. We do still value the investment that our team members make in their education and will continue to seek out employees with four-year degrees. At the same time, we also recognize the importance of education options that fit the life circumstances of our employees who do not wish or are not able to invest in a four-year degree.

The AAS program that you are proposing will be a valuable addition to the education options of our current and future employees. We could certainly see this as a degree track that would help us to meet the demands for entry level supervisory employees in our production facilities. We also appreciate the fact that this could be a great option for some of our current employees to further their education as they continue their employment. We appreciate the work that you and your department have done to propose this AAS program. Cargill is supportive of the development of such programs, and they will help to improve the ability of our team members to prepare for future roles and to grow in existing roles at Cargill.

Thank you for consideration of these comments and please let us know if you need anything else to support your efforts.

My Regards,

Scott J. Elect

Scott J. Eilert, Ph.D. VP, Responsible Sourcing Program Director Cargill Protein and Salt

825 E. Douglas

Wichita, KS 67202

316-291-2119

Josh Flohr, Ph.D.

To the Department of Grain Science and Industry,

Seaboard Foods is a leading integrated food company in the United States, producing premium pork and other protein products for domestic and international markets. With our deep roots in the Midwest, particularly in Kansas, where many of our operations are based, we are committed to fostering strong relationships within the state. Our facilities in Kansas play a vital role in our supply chain, making it one of our key production hubs.

We are pleased to hear about your proposal to develop an Associate of Applied Sciences (AAS) in Food and Feed Manufacturing. This AAS degree will help address the current labor market needs in our industry, particularly by providing targeted education and hands-on training for students who are eager to join the workforce. Many individuals in the industry are seeking opportunities to advance their careers by enhancing their knowledge while continuing their employment. This program would be an excellent resource for such professionals to upskill and contribute even more effectively to their organizations.

Additionally, as a company with strong ties to Kansas, this program is especially valuable to us. By creating opportunities for Kansas students and professionals to receive technical education close to home, the program will help sustain a robust local labor force that can support the continued growth of the state's food and feed manufacturing industries. Furthermore, this program offers a valuable pathway for students aiming to quickly enter the workforce with a two-year technical degree. The skills and qualifications gained through this degree will prepare them to succeed in various roles within the feed manufacturing sector, ensuring that we have access to well-trained and educated employees ready to thrive in our Kansas facilities.

Seaboard Foods fully supports the development of this program. A better-educated workforce will directly benefit both our company and the broader Kansas economy. We are confident that this initiative will enhance the availability of qualified employees and contribute to the overall success of food and feed manufacturing operations across the country and within our state.

Sincerely,

102 P

Josh Flohr Senior Director of Technical and Veterinary Services Seaboard Foods



August 29, 2024

To whom it may concern:

This letter is written in support of the proposed Associate of Applied Sciences in Food and Feed Manufacturing at Kansas State University. This proposed program offers the potential to positively impact and influence livestock, grain and feed manufacturing industries.

There is a large void in our industry of professionals that already possess technical skills and knowledge of grain and feed manufacturing. Therefore, it's difficult to easily find and place supervisory or managerial roles in mills. This program offers a great opportunity to offer additional training to current employees, as well as greater pool of talent in our industries.

I fully support the proposed program and the potential impact it will have.

Thanks,

Chance Williams, PhD Senior Nutritional Services Director Wayne-Sanderson Farms

4110 Continental Drive, Oakwood, Georgia 30566 800.392.0844 waynesandersonfarms.com



August 26, 2024

Kansas Board of Regents 1000 SW Jackson Street, Suite 520 Topeka, KS 66612

Dear Members of the Kansas Board of Regents,

I am writing to express Ardent Mills' enthusiastic support for the proposed Associate of Applied Science (AAS) in Food and Feed Manufacturing program being proposed by the Department of Grain Science at Kansas State University. As a leading flour milling company with a long-standing commitment to the state of Kansas, we recognize the significant benefits that this program will bring to both the local workforce and the industry as a whole.

Kansas has a storied history in flour milling and agriculture, and it is imperative that we continue to nurture and develop this vital sector. The AAS in Food and Feed Manufacturing aligns perfectly with the needs of our industry and the opportunities available to Kansas students. This program will serve as a critical bridge between education and industry, addressing the growing demand for skilled professionals in the food and feed manufacturing sector.

The benefits of this program are manifold:

1. Enhancing Workforce Skills: The AAS program will provide current and future employees with specialized training that is directly applicable to their roles within the industry. By equipping them with advanced knowledge and practical skills, the program ensures that our workforce remains competitive and adept in a rapidly evolving field.

2. **Fulfilling Industry Needs:** As the food and feed manufacturing sector continues to grow, there is an increasing need for trained professionals who understand both the technical and operational aspects of the industry. This program will help fill that need by developing a pool of highly qualified candidates ready to contribute effectively from day one.

3. **Supporting Local Economies:** By fostering a skilled workforce, the AAS program will support the long-term viability of Kansas flour mills and other food and feed manufacturing businesses. This not only helps our company but also strengthens the overall economic health of the state.

4. **Creating Pathways for Students:** The program offers a valuable opportunity for Kansas students to gain relevant education and hands-on experience, which can lead to rewarding careers within the state. By providing a clear pathway from education to employment, the

ArdentMills.com



program will help retain talent within Kansas and ensure a steady pipeline of skilled workers for the future.

At Ardent Mills, we are committed to supporting educational initiatives that align with our industry's needs and contribute to the growth of the local economy. We believe that the AAS in Food and Feed Manufacturing is a significant step forward in achieving these goals and are proud to lend our support to this initiative.

Thank you for considering this valuable addition to the educational landscape of Kansas. We are confident that the program will make a lasting impact and look forward to witnessing its success.

Sincerely,

Troy Anderson Vice President | Operations Cell: 316-200-2041

ardentmills.com



ArdentMills.com

Appendix II:





*Proposals in development

Appendix III:



*Proposals in development

KANSAS STATE

Degree: Major: Associate of Applied Science Food and Feed Manufacturing

<u>Distinctive Requirements for Degree Program</u> To Declare Major:

To Prepare for First Semester:

Fust Year					
SEMESTER 1		Critic al	Recommended	Kansas State Core	CREDITS
Requirement #1 English	Select 1 course from the list (i.e. ENGL 100 - Expository Writing I)			010	3
Requirement #3 Mathematics & Statistics	Select 1 course from the list (i.e. STAT 225 - Intro to Statistics)			030	3
ASMS 120	Intro to Food & Feed Manufacturing Employee Safety				1
ASMS 220	Employee Safety in Grain Handling Facilities			·	1
SMS 221*	Safety Applications				1
FFW 100	Orientation to Bood & Beed Manufacturing				1
FFM 110	Inter to Grain & Food Manufacturing Industria				1
FM111	Inter to Beerl & Pet Forod Manufacturing Industries			·	Î
IN 100	Interference of Food Parallel and States				1
TM120	Inspirate III D. & Orabiter Oil Society & Lorenzo				1
TH 121	Landing IT & Coulds Constant at Addition	-			1
PN1122	Infriedent ID & Quality Co-products & Manitores				1
elect 1 course:		_			
FM15991699179*	Practicum: infro to Milling/Infro to Baking/Infro to Feed & Fet Food				510
	Total C	reans	22	22 72 722	10
EMESIEK 2		Critical	Recommended	Kansas State Core	CREDITS
tequirement #2 Communication	Select 1 course from the list (i.e. COMM 106 - Public Speaking I)			020	3
Lequirement #5 Social & Behavioral Science or #6 Arts & Humanities	Select I course from the list			0.50 or 060	3
omputer Applications Course	Select 1 course: ASI 290 or CIS	· · · · ·			1-3
elect 1 group :				1	3
FM 150/151/152	Milling: Preparing Grains/Milling Process/Milling Specialty Grains			1	
FM 160/161/162	Baking: Bake ry Ingre dients/Bake ry Processe s/Bake ry Products				
FM 170/171/172	Feed & Pet Food: Feed Processing/Pet Food Processing/Finished Feed & Pet Food Quality Assurance			6	
pecialization Elective Course	See Departmental List				3
	Total C	redits			13-15
Jecond Year					
EMESTER 1		Critical	Recommended	Kansas State Core	CREDITS
equirement #4 Natural & Physical Sciences	Select 1 course from the list (i.e. AGRON 120 & 121 Crop Science)			040	4
FAD 212 or MANGT 220	Introduction to Leadership Concerts or Principles of Management				3
EM 210	Food & Feed Meantfecturing Equipment Maintenance				Ĩ
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Aanagement Elective Course	See Departmental List	5		S	3
					16
EMESTER 2		Critical	Recommended	Kansas State Core	
FM 250	Advanced Food & Feed Manufacturing Management	1. A			1
elect 1 course:					
FM 251*/261*/271*	Advanced Management : Milling/Baking/Feed & Pet Food				1
elect 1 course:				5	
FM 252/262/272	Advanced Manufacturing Management Practicum: Milling/Baking/Feed & Pet Food	× ×		S	1
FM 280	Intro to Food & Feed Safety				1
elect 1 course:					
FM 285/287	Food Safety Principles in Milling and Baking/Advanced Feed & Pet Food Safety				1
pecialization Elective Course	See Departmental List				3
danagement Elective Course	See Departmental List				3
danagement Flective Course	See Departmental List				3
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Complete as of 9/16/2024

*On-Site Course

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. Please note, K-State is requesting to require 123 hours for this program.

April 16, 2025

I. General Information

A.	Institution	Kansas State University
B.	Program Identification	
	Degree Level:	Bachelor's Program
	Program Title:	Nuclear Engineering
	Degree to be Offered:	Bachelor of Science in Nuclear Engineering
	Responsible Department or Unit:	Alan Levin Department of Mechanical and Nuclear Engineering
	CIP Code:	14.2301
	Modality:	Face-to-Face
	Proposed Implementation Date:	Fall 2025

Total Number of Semester Credit Hours for the Degree: <u>123</u>

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

III. Justification

Kansas State University (KSU) has a rich tradition in the field of nuclear engineering. In 1952, KSU established a nuclear engineering curriculum in the Department of Chemical Engineering, followed in 1958 by the creation of a dedicated Department of Nuclear Engineering. In 1964, KSU's nuclear engineering program was the first in the nation to gain accreditation. Over the next 30 years, KSU graduated many nuclear engineers who went on to become national and world leaders in the field. Due to a nationwide decline in perceived demand for nuclear engineers, KSU joined many other universities in discontinuing its Bachelor of Science (BS) in Nuclear Engineering (NE) program in 1996. However, KSU preserved nuclear engineering education at the undergraduate level by creating the NE Option, a subplan for the BS in Mechanical Engineering (ME) program. The NE Option presently consists of four technical elective courses in the junior and senior years: Radiation Protection and Shielding, Principles of Radiation Detection, Nuclear Reactor Theory, and Nuclear Reactor Laboratory. All students pursuing the BS ME degree are required to take an introductory course in nuclear engineering, and an elective course on nuclear reactor operations is available for students who wish to gain experience with the KSU Research Reactor, a federally licensed non-power reactor facility. <u>KSU has the only nuclear engineering program at any level in the State of Kansas.</u>

Demand for the NE Option has increased considerably in recent years, likely driven by availability of generous academic scholarships, student and parent recognition of degree versatility, and employer demand. In the period 2017-2024, an average of 10 students per year graduated after completing the NE Option subplan. An average of 22 students were enrolled each semester in the first course of the NE Option, Radiation Protection and Shielding, with 30 students enrolled in Fall 2024. Estimates based on the number of students who have declared the NE Option indicate a BS NE student body of between 70 and 90 students in AY 2025-2026, with further

growth fueled by dedicated recruiting that is not presently available to the NE Option and increased employer demand as nuclear power takes a more prominent role in the US energy mix.

In response to feedback from the Mechanical and Nuclear Engineering Industrial Advisory Board, input from NE Option graduates, and informal discussions with current students, nuclear engineering faculty explored the possibility of modifying the existing NE Option subplan to produce a KBOR-compliant, ABET-accreditable BS NE program. Minor modifications to the NE Option subplan of the BS ME degree were required, mainly to meet program specific requirements imposed by ABET. In the process, two credit-hours were eliminated from the curriculum, reducing the required number of credit-hours to complete the degree from 125 to 123. <u>Most importantly, the proposed BS NE program requires no additional faculty and conservative estimates indicate that the program will be immediately profitable for KSU.</u>

It is also important to note that BS NE and BS ME degree programs include some similar coursework, which is typical for these degrees at other universities. Under existing BS ME program policies and proposed BS NE program policies, a student could obtain the BS ME and BS NE in as few as 131 credit-hours and in four years. Therefore, students will have a clear path to obtaining the BS ME degree while also obtaining the BS NE degree. This is likely to be of increased interest to students prior to BS NE degree ABET accreditation, which is anticipated to occur in 2029.

IV. Program Demand: Market Analysis

The primary customers for this major are expected to be on-campus students who plan to enter the nuclear engineering workforce in Kansas or at other locations in the United States. <u>KSU has the only nuclear</u> engineering program in Kansas at any level and is poised to become a regional leader in undergraduate <u>nuclear engineering education</u>. Similar undergraduate programs exist at Colorado School of Mines (n.d.) and Missouri University of Science and Technology (n.d.), but there are no colleges or universities offering BS NE degrees in Nebraska, South or North Dakota, Minnesota, Iowa, Oklahoma, or Arkansas. Oklahoma State University offers the BS NE degree (n.d.), but many students from Texas to seek engineering degrees at Kansas State University for various reasons. The University of New Mexico offers a BS NE degree (n.d.), as well.

Demand for nuclear engineering courses at KSU as judged by enrollment in the NE Option subplan has been substantially increasing over the last few years. From 2019-2021, an average of 35 students each academic year pursued the NE Option subplan. Over the last few years, that number has increased to 58 students in AY 2023-2024, representing an increase of more than 65%. This increase in students pursuing the NE Option is likely related to the availability of scholarships for nuclear engineering students, through professional organizations such as the American Nuclear Society (n.d.) and federal agencies such as the US Department of Energy (Nuclear Energy University Programs, n.d.), and the recent bipartisan recognition (U.S. Senate Committee on Environment & Public Works, 2024) that nuclear power must play a prominent role in baseload power generation as demand for electrical power continues to increase in the United States and across the world.

Year	Total Head	count Per Year	Total Sem Cr	redit Hrs Per Year
	Full- Time	Part- Time	Full- Time	Part- Time
Implementation	83	0	450	0
Year 2	87	0	468	0
Year 3	90	0	486	0

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

NE Option enrollment for students classified as juniors or seniors was 22 in 2021, 26 in 2022, and 41 in 2023.

We expect that the growth trends would continue and then level off, with projected numbers of 50 in AY2026, 55 in AY2027, 58 in AY2028, and 60 in AY2029.

The total headcount in the proposed program in AY26, AY27, and AY28, was estimated by multiplying the projected numbers for these years based on junior/senior NE option students by a factor of 1.5. This factor accounts for freshmen and sophomore contributions to the headcount while conservatively accounting for students who enter the program greater than freshman status due to transfer credits and current students who may elect to remain in the NE Option.

Only required NE courses were included in the calculation of total semester credit hours per year shown above. These values were calculated by assuming that 20% of the headcount takes each required NE course each year. This conservatively assumes an average time to graduation of 5 years. The proposed program is designed for students to complete the BS NE degree in 4 years with reasonable courseloads each semester.

VI. Employment

Nuclear engineering is a versatile discipline with graduates that work in the commercial power, government, defense, and health sectors of the economy. Within the State of Kansas and the greater Kansas City metropolitan area, nuclear engineers work for entities including Honeywell Kansas City National Security Campus, Wolf Creek Nuclear Operating Corporation, Evergy, Enercon, Kiewit, Burns and McDonnell, Kansas Department of Health and Environment, and Radiation Detection Technologies, Inc., a Manhattan, Kansas-based small business that was founded out of the KSU Semiconductor Materials and Radiological Technologies Laboratory. Across the country, nuclear engineering graduates from KSU work at NASA's Lyndon B. Johnson Space Center, Westinghouse, General Electric-Hitachi, Nebraska Department of Health and Human Services, Bettis Atomic Power Laboratory, Los Alamos National Laboratory, Idaho National Laboratory, Naval Information Warfare Systems Center Pacific, and Oak Ridge National Laboratory, among others.

The US Bureau of Labor and Statistics (BLS) Occupational Outlook Handbook (2023) indicates a small decline in the number of nuclear engineering positions over the next decade; however, the job outlook predicts about 700 openings for nuclear engineers per year on average over the period of 2023-2033, driven by retirements in the nuclear engineering workforce. BLS estimates do not account for the requisite expansion of nuclear power in the US to meet increasing demand, driven higher by data centers feeding the on-going AI boom. For example, <u>nuclear electric power generation jobs increased by nearly 1600 in 2023</u> alone (U.S. Department of Energy, 2024), far outpacing the BLS outlook. Furthermore, a recent US Department of Energy report (2024) on advanced nuclear power commercial deployment indicates that <u>a workforce of nearly 400,000 people is required to meet US Government nuclear energy production goals by 2050</u>. A large fraction of that workforce will consist of nuclear engineers who work on design, licensing, and operation of nuclear power plants. Nuclear engineers are well-compensated, with <u>2023 median pay of \$125,460 per year for roles that</u> <u>typically require only a bachelor's degree and no work experience in a related occupation</u> (U.S. Bureau of Labor Statistics, 2023). In summary, demand for nuclear engineers is certain to remain strong and is likely to increase substantially over the next decade, and nuclear engineering salaries are likely to remain very high relative to other engineering disciplines.

VII. Admission and Curriculum

A. Admission Criteria

The admission criteria are the same as those of the KSU Carl R. Ice College of Engineering.

B. Curriculum

Year 1: Fall		SCH = Semester Credit Hours
Course #	Course Name	SCH
ME 212	Engineering Graphics	2
MATH 220	Analytic Geometry and Calculus I (KSC 030)	4
DEN 160	Engineering Orientation	1
DEN 161	Engineering Problem Solving	1
CHM 210	Chemistry I	4
ENGL 100	Expository Writing I (KSC 010)	3
	Total Hours	15

Year 1: Spring

Course #	Course Name	SCH
MATH 221	Analytic Geometry and Calculus II	4
PHYS 213	Engineering Physics I (KSC 040)	5
CHE 354	Basic Concepts in Materials Science and Engineering	1
CHE 355	Fundamentals of Mechanical Properties	1
COMM 106	Public Speaking (KSC 020)	3
ENGL 200	Expository Writing II (KSC 010)	3
	Total Hours	17

Year 2: Fall

Course #	Course Name	SCH
CIS 209	Computer Programming for Engineers (Python)	3
MATH 222	Analytic Geometry and Calculus III	4
PHYS 214	Engineering Physics II	5
NE 495	Elements of Nuclear Engineering	3
	Total Hours	15

Year 2: Spring

Course #	Course Name	SCH
	Social & Behavioral Sciences Requirement (KSC 050) *	3
MATH 340	Differential Equations	4
CE 333	Statics	3
ME 513	Thermodynamics	3
NE 415	Introduction to Engineering Analysis	3
	Total Hours	16

Year 3: Fall

Course #	Course Name	SCH
	Social & Behavioral Sciences Requirement (KSC 050) *	3
CE 533	Mechanics of Materials	3
ME 512	Dynamics	3
ECE 519	Electric Circuits for Engineers	3
NE 690	Radiation Protection and Shielding	3
	Total Hours	15

Year 3: Spring

Course #	Course Name	SCH

	Arts & Humanities Requirement (KSC 060) **	
	Restricted Technical Elective ***	3
ME 571	Fluid Mechanics	3
NE 650	Nuclear Fuel Cycles +	3
NE 612	Principles of Radiation Detection	3
	Total Hours	15

Year 4: Fall

Course #	Course Name	SCH
ME 573	Heat Transfer	3
ME 574	Interdisciplinary Industrial Design Project I	3
NE 640	Nuclear Reactor Thermal Hydraulics	3
NE 630	Nuclear Reactor Theory	3
	Free Electives {Institutionally Designated Area} (KSC 070)	3
	Total Hours	15

Year 4: Spring

Course #	Course Name	SCH
	Arts & Humanities Requirement (KSC 060) **	3
NE 585	Nuclear Engineering Design Projects +	3
NE 648	Nuclear Reactor Laboratory	3
	Free Electives {Institutionally Designated Area} (KSC 070)	3
	Nuclear Engineering Elective ++	3
	Total Hours	15

- * Any two courses meeting KSC-5 requirements may be taken
- ** Any two courses meeting KSC-6 requirements may be taken
- *** Any course from the restricted elective list may be taken
 - + New course not yet in undergraduate catalog
- ++ Any course from the nuclear engineering elective list may be taken

Total Number of Semester Credit Hours <u>123</u>

To graduate with a Bachelor of Science in nuclear engineering, students must have $a \ge 2.200$ GPA in all ME/NE classes ≥ 400 level taken for undergraduate credit at Kansas State University. Course grades that have been removed by the K-State Retake policy will not apply to this GPA calculation.

***List of restricted electives

- NE at or above the 300 level
- ME at or above the 500 level (except ME 519)
- BAE at or above the 200 level
- BME at or above the 200 level
- CE at or above the 200 level (except CE 202, CE 212, CE 530)
- CHE at or above the 200 level
- CIS at or above the 200 level
- ECE at or above the 200 level
- ENVE at or above the 200 level
- IMSE at or above the 200 level
- MATH at or above the 500 level

- CHM at or above the 230 level
- PHYS at or above the 325 level
- BIOL at or above the 190 level
- BIOCH at or above the 250 level
- STAT at or above the 500 level
- GEOL at or above the 360 level

++List of nuclear engineering electives

- NE at or above the 600 level
- ME 777: Monte Carlo Methods
- ME 760: Engineering Analysis I

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
Amir Bahadori *	Associate Professor	PhD	Y	Radiation Protection	0.1875
Ronnie Brockhoff	Teaching Associate Professor	PhD	N	Radiation Transport	0.25
Anna Iskhakova	Research Assistant Professor	PhD	Ν	Thermal Hydraulics Nuclear Fuels	0.125
Arsen Iskhakov	Assistant Professor	PhD	Y	Thermal Hydraulics	0.125
Douglas McGregor	University Distinguished Professor	PhD	Y	Radiation Detection Nuclear Materials	0.125
Walter McNeil	Associate Professor	PhD	Y	Radiation Detection Systems	0.125
Jeremy Roberts	Associate Professor	PhD	Y	Reactor Physics	0.4375

IX. Expenditure and Funding Sources

A. EXPENDITURES		ïrst FY	See	cond FY	T	hird FY
Personnel – Reassigned or Existing Positions						
Faculty	\$	147,000	\$	151,400	\$	155,900
Administrators (other than instruction time)	\$	0	\$	0	\$	0
Graduate Assistants	\$	25,000	\$	25,800	\$	26,500
Support Staff for Administration (e.g., secretarial)	\$	0	\$	0	\$	0
Fringe Benefits (total for all groups)	\$	52,000	\$	53,600	\$	55,200

Other Personnel Costs	\$ 0	\$ 0	\$ 0
Total Existing Personnel Costs – Reassigned or Existing	\$ 224,000	\$ 230,800	\$ 237,600
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	\$ 0	\$ 0	\$ 0
Physical Facilities: Construction or Renovation	\$ 0	\$ 0	\$ 0
Other	\$ 0	\$ 0	\$ 0
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	\$ 224,000	\$ 230,800	\$ 237,600

B. FUNDING SOURCES (projected as appropriate)	Current	First FY (New)		First FY (New)		First FY (New)		First FY (New)		First FY (New)		First FY (New)		First FY (New)		First FY (New)		First FY (New)		Second FY (New)		Third FY (New)	
Tuition / State Funds		\$	216,000	\$	235,800	\$	257,100																
Student Fees		\$	47,500	\$	49,400	\$	51,300																
Other Sources		\$	0	\$	0	\$	0																
GRAND TOTAL FUNDING		\$	263,500	\$	285,200	\$	308,400																

C. Projected Surplus/Deficit (+/-) (Grand Total Funding <i>minus</i> Grand Total Costs)	\$	39,500	\$	54,400	\$	70,800
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X. Expenditures and Funding Sources Explanations

A. Expenditures

Personnel – Reassigned or Existing Positions

The faculty members identified in Section VIII, Core Faculty, will contribute the stated fractional FTE to the program. The cost to the program was estimated by multiplying the salary and associated fringe for each faculty member by the stated fractional FTE. For Ronnie Brockhoff, this number was multiplied by 0.2 to account for the fact that NE 495, Elements of Nuclear Engineering, will be taken by both BS ME and BS NE students for the foreseeable future, and approximately 20% of the students each year are anticipated to be BS NE students. All current salaries were inflated by 3% per year to account for cost-of-living adjustments, including for AY 2025-2026. Fringe was estimated as 33% of salary.

One GTA with an AY 2025-2026 salary of \$25,000 will be allocated to the program. This salary was inflated by 3% per year to account for cost-of-living adjustments. Fringe was estimated as 14% of salary for the GTA.

All values presented in the table were rounded to the nearest \$100.

Personnel – New Positions

No new positions required for this program.

Start-up Costs – One-Time Expenses

No start-up costs required for this program.

Operating Costs – Recurring Expenses

No recurring expenses required for this program. Existing nuclear engineering laboratories are being maintained by the Alan Levin Department of Mechanical Engineering using departmental funds.

B. Revenue: Funding Sources

The AY 2024-2025 base tuition rate for undergraduate students at KSU is \$341.42 per credit hour for in-state status and \$919.65 per credit hour for out-of-state status (Kansas State University, 2024). Engineering fees are \$105.60 per credit hour for both in-state and out-of-state students (Kansas State University, 2024). For the purposes of computing tuition revenue, we assume that 80% of BS NE students have in-state status while 20% of BS NE students have out-of-state status, roughly corresponding to data from the most recent KSU Carl R. Ice College of Engineering fact book (Kansas State University College of Engineering, 2024).

An inflation rate of 5% is applied to base tuition, including for AY 2025-2026, corresponding to recent historical trends (Kansas State University College of Engineering, 2024). Engineering fees have not changed in recent years and are conservatively assumed to remain constant through the first three years of the program.

C. Projected Surplus/Deficit

Even under conservative assumptions, the proposed program will be immediately profitable, with a growing profit margin over the first three years. The return-on-investment is projected to grow from 18% in the first year to 30% in the third year. The program is projected to be profitable with a minimum enrollment of about 70 students.
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. Pittsburg 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. April 16, 2025

I. General Information

A. Institution

Pittsburg State University

B. Program Identification

0	
Degree Level:	Bachelor's
Program Title:	Supply Chain Management
Degree to be Offered:	Bachelor of Business Administration
Responsible Department or Unit:	Kelce Undergraduate School of Business
CIP Code:	52.0203 (Logistics/Materials/Supply Chain Management)
Modality:	Face-to-Face
Proposed Implementation Date:	Fall Semester 2025

Total Number of Semester Credit Hours for the Degree: 120

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

III. Justification

Pittsburg State University proposes to create a "Supply Chain and Industrial Distribution Program" to help meet the growing need for supply chain mangers across the state of Kansas and the Midwest region. This program will be a unique collaboration between the Kelce College of Business (KCOB) and the Crossland College of Technology (CCOT) with each college offering a separate undergraduate degree in the field. The KCOB will offer a Bachelor of Business Administration (BBA) in Supply Chain Management and the CCOT will offer a Bachelor of Science in Technology (BST) with a major in Industrial Distribution. The two degrees will share a number of common courses including eight major core courses – four taught by each college. In addition, both the BBA and the BST students will be required to complete a professional internship. The common major core will be surrounded by each respective college's foundation and support courses representing their separate academic traditions. Thus, BBA graduates will complete courses required of all business majors while BST students will complete courses a wide variety of technology disciplines. An attachment is included in this proposal to illustrate how the two degrees share courses and provide students with a choice of how to focus their studies from either a business or a technological perspective. Given the wide variety of occupations across many different industries which hire supply chain professionals, the option to choose either a business or technology path will give students an option not found at other institutions.

Following KBOR guidelines, this document represents the proposal to create the BBA in Supply Chain Management while a separate proposal has been prepared for the BST in Industrial Distribution. Note that this organizational structure allows Pitt State to leverage resources across the two colleges and to combine existing complementary courses into new degree programs. Of the eight major core courses, only two new courses needed to be developed – one in each college (KCOB's MGT 550 Supply Chain Management and CCOT's GRT 210 Industrial Distribution Fundamentals). Thus, given that most of the courses needed to develop these two majors already resided in the university catalog, the marginal, incremental, cost of these programs is low. Neither the KCOB or the CCOT has the resources to produce these programs individually but cross-college collaboration makes it possible and cost-effective for both.

IV. Program Demand

Market Analysis

In recent years, the market for those holding a degree in supply chain management and related fields has grown significantly. The COVID pandemic highlighted the critical need to effectively manage the ever-increasing complexity of global supply chains and advancements in distribution and transportation technology. Within virtually every industry, the competitive pressures of the global economy have increased the demand for skilled professionals who can manage supply chain operations. As evidenced by the number of job vacancies and the level of competitive salaries (see Section VI below), there is a strong labor market for supply chain professionals in the state of Kansas. Two of the three research universities within the KBOR system currently offer supply chain undergraduate degrees, KU - BSB in Supply Chain Management, and KSU - BS in Operations & Supply Chain Management, while WSU offers a Masters in Management Science & Supply Chain Management. Other four-year campuses within the system offer coursework in the field and some two-year campuses such as WSU-Tech and JCCC offer certificates and/or an AA in supply chain management. However, supply chain management degrees are not offered currently at the three regional 4-year campuses. Recent initiatives through the Kansas Department of Commerce (2024) and highlighted by KBOR's Workforce Development Staff (2024), indicate that there is a need to produce more in-state supply chain professionals. Likewise, at the national level, the U.S. Bureau of Labor Statistics (2024) estimated that there will be a 28% job growth for logisticians, including supply chain managers, between the years 2021 and 2031. Pitt State's proposed Supply Chain Management and Industrial Distribution Program is designed to help meet these statewide and national workforce needs.

Pitt State is uniquely situated and equipped to supplement the talent pool for supply chain professionals in the state of Kansas. Located in the extreme southeast corner of the state, regional students do not have a local option to access training in supply chain management. The nearest four-year bachelor programs are in Lawrence, Manhattan, Springfield, Missouri, and Fayetteville, Arkansas - each of these options is two or more hours away and attracts a different demographic mix of students than Pitt State. Given these facts, the proposed program is not anticipated to be in direct competition with those programs at KU, KSU, Missouri State, or the University of Arkansas. In addition, Pittsburg has traditionally been a transportation hub since its days as the center of the southeast Kansas coal mining district a hundred years ago. Previously the location of a major Kansas City Southern railyard, Pittsburg is now home to Watco Companies, a major transportation service firm which integrates rail, water, road, and air to meet supply chain needs of businesses across the region, nation, and world. Watco is the second largest operator of short line railroads in the United States with operations in 27 states, Canada, and Australia. In addition, Pittsburg is less than one hundred miles from the headquarters of Walmart, in Bentonville, Arkansas. Due to corporate policies, numerous Walmart suppliers and their distribution centers are located in Northwest Arkansas, one of the fastest growing metropolitan areas in the country. Pitt State has a history of placing graduates with Watco, Walmart, and their affiliates, and we believe the proposed new supply chain major will enhance our relationships with them. As structured, there is a strong local and regional market for graduates of the proposed supply chain BBA.

Year	Headcou	int Per Year	Sem Credit	t Hrs Per Year*
	Full- Time	Part- Time	Full- Time	Part- Time
Implementation	5		150	
Year 2	15		450	
Year 3	25		750	

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

*Assumes 15 credit hour load per semester

Note: Projections above for Supply Chain Management BBA only; see separate proposal for the Industrial Distribution BST for additional student projections

VI. Employment

Graduates of supply chain management programs can pursue a wide range of careers, such as:

- **Procurement Manager:** Source and negotiate with suppliers to ensure the timely delivery of materials and components at competitive prices.
- Logistics Manager: Coordinate the movement of goods from suppliers to customers, including transportation, warehousing, and distribution.
- **Operations Manager:** Oversee the overall operations of a business, including production, inventory management, and quality control.
- **Supply Chain Analyst:** Analyze resource supply data to develop strategies to optimize sourcing and production operations.
- **Supply Chain Consultant:** Provide expert advice to businesses on how to improve their supply chain performance.

The market for supply chain professionals in Kansas is currently strong. At the time of this writing (10/01/24), online recruiting firm Indeed.com (2024) reported 410 openings in the state for "supply chain manager jobs" while Glassdoor (2024) listed 365, and ZipRecruiter (2024) reported 342. Many of these jobs are entry level and located in communities where Pitt State already has a substantial alumni base, including Johnson County which is the second largest feeder county for Pitt State students. We anticipate that the Supply Chain Management degree will present an attractive opportunity for those students desiring a professional business career in Kansas.

Salaries for supply chain professionals in Kansas are also attractive and above average. A review of all supply chain jobs in Kansas currently listed by ZipRecruiter reveal a range from \$36K to \$130K per year. According to the U.S. Bureau of Labor Statistics, the median annual salary is \$77K. Long-term salary prospects in the field are very bright as Salary.com reports that supply chain senior managers have a median annual income of \$165K.

Given the current state-wide demand for supply chain professionals, graduates of the program should face plentiful opportunities for gainful employment in Kansas.

VII. Admission and Curriculum

A. Admission Criteria

Students pursuing the proposed BBA in Supply Chain Management will be admitted to the university according to prevailing Pittsburg State campus-wide policies. Enrollment in the Supply Chain Management BBA also requires admission to the Kelce College of Business. Formal admission to the Kelce College of Business occurs upon completion of the following requirements:

- Completion of at least 30 credit hours applicable to the degree.
- Achievement of a 2.25 cumulative grade point average
- Completion of these courses with a C or better:

English Composition (ENGL 101 or ENGL 190) Introduction to Research Writing (ENGL 299 or ENGL 190) Speech Communications (COMM 207) College Algebra or Elementary Statistics (MATH 113, MATH 143, or higher) Computer Information Systems (DSIS 130) Financial Accounting (ACCTG 201)

• Signing the Kelce College of Business Application for Admission Form and the Kelce College of Business Student Oath and Code of Ethics.

Admission to the Kelce College of Business is required prior to enrollment in all upper-level business courses numbered 400 and above.

B. Curriculum

Year 1: Fall	SCH = Semester (Credit Hours
Course #	Course Name	SCH
ENGL 101	ENGLISH COMPOSITION (Gen Ed Bucket 1)	3
MATH 143 or	ELEMENTARY STATISTICS or	2
MATH 113	COLLEGE ALGEBRA (Gen Ed Bucket 3)	5
BUS 101	INTRODUCTION TO BUSINESS	3
UGS 150	GORILLA GATEWAY (Gen Ed Bucket 7)	2
TBD	Social & Behavioral Sciences Gen Ed (Gen Ed Bucket 5)	3
TBD	Pitt State Designated Requirement (Gen Ed Bucket 7)	1
	SEMESTER TOTAL	15

Year 1: Spring

Course #	Course Name	SCH
ACCTG 201	FINANCIAL ACCOUNTING	3
ENGL 299	INTRODUCTION TO RESEARCH WRITING (Gen Ed Bucket 1)	3
TBD	Pitt State Designated Requirement (Gen Ed Bucket 7)	3
TBD	Natural & Physical Sciences Requirement (Gen Ed Bucket 4)	4
TBD	Arts & Humanities Requirement (Gen Ed Bucket 6)	3
	SEMESTER TOTAL	16

Year 2: Fall

Course #	Course Name	SCH
ACCTG 202	MANAGERIAL ACCOUNTING	3
DSIS 130	COMPUTER INFORMATION SYSTEMS	3
QBA 210	BUSINESS STATISTICS	3
COMM 207	SPEECH COMMUNICATION (Gen Ed Bucket 2)	3
ECON 200	PRINCIPLES OF MICROECONOMICS	3
	SEMESTER TOTAL	15

Year 2: Spring

Course #	Course Name	SCH
ECON 201	PRINCIPLES OF MACROECONOMICS	3
GT 210	SURVEY OF TECHNOLOGICAL SYSTEMS	3
QBA 310	BUSINESS ANALYTICS I	3
TBD	Social & Behavioral Sciences Gen Ed (Gen Ed Bucket 5)	3
TBD	Arts & Humanities Requirement (Gen Ed Bucket 6)	3

SEMESTER TOTAL 15		
	SEMESTER TOTAL	15

Year 3: Fall

Course #	Course Name	SCH
BUS 210	BUSINESS PROFESSIONALISM	3
ID 210	INDUSTRIAL DISTRIBUTION FUNDAMENTALS	3
QBA 410	BUSINESS ANALYTICS II	3
MGT 330	MANAGEMENT AND ORGANIZATIONAL BEHAVIOR	3
MKTG 330	PRINCIPLES OF MARKETING	3
	SEMESTER TOTAL	15

Year 3: Spring

Course #	Course Name	SCH
MGT 550	SUPPLY CHAIN MANAGEMENT	3
FIN 326	BUSINESS FINANCE	3
DSIS 420	MANAGEMENT INFORMATION SYSTEMS	3
GT 300	ENGINEERING DESIGN AND PROBLEM SOLVING	3
MGT 430	LEGAL AND SOCIAL ENVIRONMENT OF BUSINESS	3
	SEMESTER TOTAL	15

Year 4: Fall

Course #	Course Name	SCH
GT 340	POWER/ENERGY/TRANSPORTATION SYSTEMS	3
MKTG 430	RETAIL AND CHANNELS MANAGEMENT	3
MGT 510	OPERATIONS MANAGEMENT	3
ECON XXX	Upper Division Economics Elective	3
TBD	Open Elective	3
	SEMESTER TOTAL	15

Year 4: Spring

Course #	Course Name	SCH
MGT 520	QUALITY MANAGEMENT	3
GT 380	MANUFACTURING ENTERPRISE	3
MGT 671	INTERNSHIP IN SUPPLY CHAIN MANAGEMENT	3
MGT 690	BUSINESS STRATEGY	3
TBD	Open Elective	2
	SEMESTER TOTAL	14

Total Number of Semester Credit Hours	\$	<u>120</u>
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VIII. Core Faculty

As proposed, the Supply Chain Management and Industrial Distribution program is a collaboration between the KCOB and CCOT. Like all BBAs in the KCOB, the curriculum for the Supply Chain Management major is modular in design – students take the university's General Education package, the foundational multi-disciplinary business core (known as the Kelce Core) and prerequisites, followed by the major core courses. As described above, the major core for Supply Chain Management consists of eight courses and an internship – equally split between the KCOB and the CCOT. Since all of the General Education and Kelce Core courses are already established and have adequate capacity to absorb the projected new Supply Chain Management majors,

the table below lists only those individual faculty who will teach KCOB's share of major core courses. (The remaining major core courses will be reflected in the proposal for the CCOT's proposal for the BST in Industrial Distribution.)

Faculty Name	Rank	Highest Degree	Tenure Track Y/N	Academic Area of Specialization	FTE to Proposed Program
SCM Major Courses					
Lee, Sang-Heui*	Professor	Ph.D.	Y	Management/Supply Chain	1.0
Frank, Phillip	Assistant Professor	Ph.D.	Y	Marketing	0.33
Melissa Weed	Courtesy Professor (Internship Director)	MBA	N	Entrepreneurship	.10
Kelce Core Courses					
24 Additional Full- time faculty members					

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

Number of graduate assistants assigned to this program \dots

IX. Expenditure and Funding Sources

All faculty members who will teach the KCOB's share of Supply Chain Management courses are already on staff. The salary and fringe benefits numbers below for the first year are taken from the Pitt State FY25 budget prorated by the share of their FTE assignment to the program. The corresponding numbers for the second and third year reflect an increase of two percent annual increase (the average wage increase for Pitt State faculty in recent years). The annual administrator cost reflects the annual stipend paid in the KCOB for program coordinators.

A. EXPENDITURES	First FY	Second FY	Third FY
Personnel – Reassigned or Existing Positions			
Faculty	\$151,964	\$155,003	\$158,103
Administrators (other than instruction time)	\$2,500	\$2,500	\$2,500
Graduate Assistants			
Support Staff for Administration (e.g., secretarial)			
Fringe Benefits (total for all groups)	\$41,675	\$42,506	\$43,359
Other Personnel Costs			
Total Existing Personnel Costs – Reassigned or Existing	\$196,139	\$200,009	\$203,962
Personnel – New Positions			
Faculty			
Administrators (other than instruction time)			
Graduate Assistants			
Support Staff for Administration (e.g., secretarial)			

Fringe Benefits (total for all groups)			
Other Personnel Costs			
Total Personnel Costs – New Positions	N/A	N/A	N/A
Start-up Costs - One-Time Expenses			
Library/learning resources			
Equipment/Technology			
Physical Facilities: Construction or Renovation			
Other			
Total Start-up Costs	N/A	N/A	N/A
Operating Costs – Recurring Expenses			
Supplies/Expenses	\$500	\$500	\$500
Library/learning resources			
Equipment/Technology			
Travel	\$2,000	\$2,000	\$2,000
Other			
Total Operating Costs	\$2,500	\$2,500	\$2,500
GRAND TOTAL COSTS	\$198,639	\$202,509	\$206,462

B. FUNDING SOURCES (projected as appropriate)	Current	First FY (New)	Second FY (New)	Third FY (New)
Tuition / State Funds	\$198,639	\$198,639	\$202,509	\$206,462
Student Fees				
Other Sources				
GRAND TOTAL FUNDING	\$198,639	\$198,639	\$202,509	\$206,462
C. Projected Surplus/Deficit (+/-) (Grand Total Funding <i>minus</i> Grand Total Costs)		\$0	\$0	\$0

X. Expenditures and Funding Sources Explanations

A. Expenditures

Personnel – Reassigned or Existing Positions

The proposed collaborative Supply Chain Management and Industrial Distribution Program is primarily a "repackaging" of existing courses and curricula within the KCOB and the CCOT. Only two new courses were created to complete the major core. Thus, virtually all of the courses are already available and being taught by existing faculty members on staff. Currently, due to the recent declines in campus enrollment, there is capacity

within the current and planned schedule of course offerings to accommodate the new students projected to enroll in the proposed program. This program will allow the two colleges to more efficiently utilize their existing resources by filling currently empty seats.

Personnel – New Positions

No new positions are required to operate the proposed Supply Chain Management and Industrial Distribution Program. With the addition of the two new courses, all other courses and curricula are already in place and being taught by current KCOB and CCOT faculty members. Due to the recent declines in enrollment at Pitt State, classroom capacity exists to accommodate the number of new students projected to enroll in the proposed program. New positions will only be required in the long-run if enrollment in the program grows overall total enrollment in the colleges beyond previously experienced levels.

Start-up Costs – One-Time Expenses

Again, no additional one-time start-up costs are anticipated. Needed resources and facilities are already in place to support the existing courses and curricula that are being repackaged to create the Supply Chain Management and Industrial Distribution Program. By spreading the costs of these existing fixed resources over more students, financial and operational efficiencies will be realized.

Operating Costs – Recurring Expenses

It is estimated that approximately \$500 in supplies/commodities will be consumed each year to support the proposed program. We anticipate the cost of one faculty member to attend one supply chain management conference or professional development program each year at a cost of about \$2,000. Again, these expenditures are already within our budgets and only represent a reallocation of use into the proposed program. No new funds will be necessary to support these direct outlays.

B. Revenue: Funding Sources

All major core faculty positions in the Kelce College of Business are fully funded by Pittsburg State University through annual state appropriations and self-generated student tuition and fees revenue. Because the proposed Supply Chain Management major is built by repurposing existing courses and curricula, and because we currently have excess capacity due to recent enrollment declines, no new revenues will be required to operate the program is already in our annual budget. Thus, the revenues presented in the table above are shown to offset the expected personnel and operating expenses to produce net incremental cost of zero during the first three years. However, if the projected student enrollments in the program meet the targets listed in Table 5, a net surplus will be generated as described below.

C. Projected Surplus/Deficit

The proposed Supply Chain Management and Industrial Distribution Program is expected to break even for the first three years as described and reflected in the figures above. If we are able to meet our enrollment goals and then grow the program beyond these projections, the program will produce a net surplus for the university. Assume the following conditions; the program attracts new full-time students to Pitt State in accordance with our projections in Table 5, these students pay the flat-rate full-time in-state undergraduate tuition/fees rate which grows by three percent annually for the two years following the initial year of enrollment. Under these conditions, in Year 3 we will enroll 25 students who will pay an annual tuition/fees rate of approximately \$8,900 for the academic year. This results in 25 x 8,900 = 222,500 which exceeds the expected total cost of running the program by a little more than \$16,000. Obviously, any enrollment above the projected level adds to the program's "profit."

XI. References

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MAP OF SUPPLY CHAIN MANAGEMENT AND INSUSTRIAL DISTRIBUTION DEGREES

Supply Chain and Industrial Distribution - Programs of Study

General Education (24 Hours)				Hrs	BBA Swooly Chain	BST Inductrial Distribution
General Education (54 Hours)				ms <u>.</u>	Supply Chain	Industrial Distribution
6 hours English	ENGL	101	English Composition	3	3	3
	ENGL	299	Introduction to Research Writing	3	3	3
3 hours Communications	сомм	207	Speech Communication	з	3	3
2 hours Mathematics	MATH	112	College Algebra or		,	
3 nours Mathematics	MATH	143	Elementary Statistics. (Recommended) or	5	3	2
	MATH	XXX	Higher level course			
					-	
4 hours Science	TBD	XXX	Restricted Student Choice	4	4	4
6 hours Social & Behavior Science	TBD	XXX	Restricted Student Choice (ECON 200 recommended)*	з	з	3
	TBD	XXX	Restricted Student Choice	3	3	3
6 hours Arts 8 Humanities	TRD	~~~	Partricted Student Chaice			
o nours Arts & numanities	TBD	XXX	Restricted Student Choice	3	3	3
6 hours University-designated	UGS	150	Gorilla Gateway	2	2	2
	TBD	XXX	Restricted Student Choice (MECET 121, GT 210 or MGT 101 recommended)**	1	1	1
	100	AAA		-	-	-
Kelce Core Prerequisites (9 Hours)						
	DSIS	130	Computer Information Systems	3	3	
	ECON	200	Principles of Macroeconomics	3	3	
				-	-	
Kelce Core (42 Hours)						
	ACCTG	201	Financial Accounting	3	3	
	ACCTG	202 420	Managerial Accounting Management Information Systems	3	3	
	ECON	XXX	Restricted Student Choice	3	3	
	FIN	326	Business Finance	3	3	
	BUS	101	Introduction to Business**	3	3	
	BUS	210	Business Professionalism	3	3	
	MGT	430	Legal and Social Environment of Business	3	3	3
	MGT	690	Business Strategy	3	3	-
	MKTG	330	Principles of Marketing	3	3	3
	QBA	210	Business Statistics	3	3	3
	QBA	310	Business Analytics I Business Analytics II	3	3	3
	QDA	410	business Analytics in	-	-	-
COT Prerequisites (3 Hours)						
	GT	210	Survey of Technological Systems"	3	3	3
COT BST Support Courses (30 Hour	rs)					
	MECET	121	Engineering Graphics** (or CMCET 133 Construction Graphics)	3		3
	EET	141	Introduction to Electronics	3		3
	GT	320	Introduction to Industrial Safety (or EST 296 Intro. Construction Safety) Communication Systems	3		3
	GT	350	Fundementals of Coding and Robotics	3		3
	GT	360	Computer Aided Drafting for Automated Manufacturing	3		3
	AT	399	Professional Development in the Transportation Industry	3		3
	AT TM	400	Fluid Power	3		3
		000				-
Supply Chain & Industrial Distribut	tion Major	r (27 H	ours)			
	ID	210	Industrial Distribution Fundamentals	3	3	3
	GT	300	Engineering Design and Problem Solving Power/Energy/Transportation Systems	3	3	3
	GT	380	Manufacturing Enterprise	3	3	3
	MGT	510	Operations Management	з	3	3
	MGT	520	Quality Management	3	3	3
	MGT	550	Supply Chain Management	3	3	3
	WIKI'G	430	netali anu channels management	3	3	3
	MGT	671	Internship in Supply Chain Management	3	3	
	ID	400	Internship for Industrial Distribution	3		3
Flective Courses (5 to 11 Hours min	nimuml					
circulate courses (5 to 11 hours mil	TBD	xxx	Approved Student Choices (minimum)		5	11
			(Total number of elective hours dependent upon Gen Ed choices.)			-
Total Hours					120	120

Program Approval

Summary

Universities may apply for approval of new academic programs following the guidelines in the Kansas Board of Regents Policy Manual. Pittsburg 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. April 16, 2025

I. General Information

A. Institution

Pittsburg State University

B. Program Identification

Degree Level:Bachelor'sProgram Title:Industrial DistributionDegree to be Offered:Bachelor of Science in Industrial DistributionResponsible Department or Unit:Crossland College of Technology, School of Technology
& Workforce LearningCIP Code:52.1801Modality:Face-to-FaceProposed Implementation Date:Fall 2025

Total Number of Semester Credit Hours for the Degree: 120

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

III. Justification

Pittsburg State University proposes to create a "Industrial Distribution Program" to help meet the growing need for supply chain and industrial distribution mangers across the state of Kansas and the Midwest region. This program will be a unique collaboration between the Crossland College of Technology (CCOT) and Kelce College of Business (KCOB) with each college offering a separate undergraduate degree in the field. The CCOT will offer a Bachelor of Science in Technology (BST) with a major in Industrial Distribution and the KCOB will offer a Bachelor of Business Administration (BBA) in Supply Chain Management. The two degrees will share a number of common courses including eight major core courses – four taught by each college. In addition, both the BST and the BBA students will be required to complete a professional internship. The common major core will be surrounded by each respective college's foundation and support courses representing their separate academic traditions. Thus, BST students will complete courses across a wide variety of technology disciplines while BBA graduates will complete courses required of all business majors. An appendix is attached to this proposal to illustrate how the two degrees share courses and provide students with a choice of how to focus their studies from either a technological or a business perspective. Given the wide variety of occupations across many different industries which hire industrial distribution or supply chain professionals, the option to choose either a business or technology path will give students an option not found at other institutions.

Following KBOR guidelines, this document represents the proposal to create a BST in Industrial Distribution while a separate proposal has been prepared for the BBA in Supply Chain Management. Note that this organizational structure allows Pitt State to leverage resources across the two colleges and to combine existing complementary courses into new degree programs. Of the eight major core courses, only two new courses needed to be developed – one in each college (KCOB's MGT 550 Supply Chain Management and CCOT's

GRT 210 Industrial Distribution Fundamentals). Thus, given that most of the courses needed to develop these two majors already resided in the university catalog, the marginal, incremental, cost of these programs is low. Neither the KCOB nor the CCOT has the resources to produce these programs individually but cross-college collaboration makes it possible and cost-effective for both.

IV. Program Demand Market Analysis

In recent years, the market for those holding a degree in industrial distribution and related fields has grown significantly. The COVID pandemic highlighted the critical need to effectively manage the ever-increasing complexity of global distribution and supply chains and advancements in transportation technology. The competitive pressures of the global economy have increased the demand for skilled professionals who can manage industrial distribution operations in most industries. As evidenced by the number of job vacancies and the level of competitive salaries (see Section VI below), there is a strong labor market for industrial distribution and supply chain professionals in the state of Kansas. No Regent institution offers a degree in industrial distribution. Two of the three research universities within the KBOR system currently offer supply chain undergraduate degrees: KU - BSB in Supply Chain Management, and KSU - BS in Operations & Supply Chain Management, while WSU offers a Master's in Management Science & Supply Chain Management. Other fouryear campuses within the system offer coursework in the field and some two-year campuses such as WSU-Tech and JCCC offer certificates and/or an AA in Supply Chain Management. However, industrial distribution and supply chain management degrees are not offered currently at the three regional four-year campuses. Recent initiatives through the Kansas Department of Commerce (Commerce, 2020-2025), and highlighted by website such as Glassdoor.com and others, there is a high demand for logistics professionals in industrial distribution, and supply chain management in Kansas. (Glassdoor, 2008-2025) Likewise, at the national level, the U.S. Bureau of Labor Statistics estimated that there will be a 19% job growth for logisticians, including supply chain managers, between the years 2021 and 2031. (Statistics, 2024) Pitt State's proposed joint Industrial Distribution and Supply Chain Management Programs are designed to help meet these statewide and national workforce needs.

Pitt State is uniquely situated and equipped to supplement the talent pool for industrial distribution professionals in the state of Kansas. Located in the southeast corner of the state, regional students do not have access to a regional industrial distribution or supply chain management program. The nearest four-year bachelor programs are in Lawrence and Manhattan, Kansas, Springfield, Missouri, and Fayetteville, Arkansas – each of these are two or more hours away and attract a different demographic mix of students than PSU. The proposed program is not anticipated to be in direct competition with programs at those universities. Historically, Pittsburg has been a transportation hub since its days as the center of the southeast Kansas coal mining. Pittsburg is home to Watco Companies, the second largest operator of short line railroads in the United States with operations in 27 states, Canada, and Australia. Due to corporate policies, numerous Walmart suppliers and their distribution centers are located in Northwest Arkansas, one of the fastest growing metropolitan areas in the country. Jake's Fireworks is one of the largest importers of fireworks in the world. Pitsco Education is one of the largest suppliers of K-12 STEM products in the U.S. Pitt State has a history of placing graduates in these companies, and many other companies in the area, and we believe the proposed new supply chain major will enhance our relationships with them. As structured, there is a strong local and regional market for graduates of the proposed degrees.

Year	Headcount Per Year		Sem Credit	t Hrs Per Year*
	Full- Time	Part- Time	Full- Time	Part- Time
Implementation	10		300	
Year 2	20		600	
Year 3	30		900	

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

Note: Projections above for BST Industrial Distribution only; see separate proposal for the Supply Chain Management BBA for additional student projections.

VI. Employment

Graduates of supply industrial distribution programs can pursue a wide range of careers, such as:

- Distribution Specialist: Facilitates and manages the shipping and receiving processes of a warehouse.
- **Distribution Manager:** manages the distribution operations for a company, including warehouse operations.
- Order Manager: Oversees and manages customer order activity.
- **Purchasing Agent:** Collaborates with the purchasing manager to negotiate prices with vendors, manufacturers and suppliers.
- **Operations Manager:** Oversee the overall operations of a business, including production, inventory management, and quality control.
- Warehouse Manager: supervises the activities of their staff, including the management of vehicles, security, sanitation and equipment.
- Facilities Manager: oversees all activities related to a building, like a factory or a warehouse.

The market for industrial distribution professionals in Kansas is currently strong. At the time of this writing (10/07/24), online recruiting firm Indeed.com reported over 400 positions. Many of these jobs are entry level and located in communities where Pitt State already has a substantial alumni base, including Johnson County which is the second largest feeder county for Pitt State students. We anticipate that the Industrial Distribution degree will present an attractive opportunity for those students desiring a professional career in Kansas.

Salaries for industrial distribution professionals in Kansas are also attractive and above average. A review of industrial distribution currently listed by Indeed reveal a range from \$78,029 to \$133,669 per year. (Indeed, 2025) According to the U.S. Bureau of Labor Statistics, the median annual salary for a distribution manager is \$79,400. (Statistics, 2024) Long-term salary prospects in the field are very bright as Salary.com reports that supply chain senior managers have a median annual income of \$109,057. (Salary, 2025)

Given the current state-wide demand for industrial distribution professionals, graduates of the program should face plentiful opportunities for gainful employment in Kansas.

VII. Admission and Curriculum

A. Admission Criteria

Students pursuing the proposed BST in Industrial Distribution will be admitted to the university according to prevailing Pittsburg State campus-wide policies.

B. Curriculum

Year 1: Fall		SCH = Semester Credit Hours
Course #	Course Name	SCH
ID 210	Industrial Distribution Fundamentals	3
GT 210	Technology in the World Today (Gen Ed Bucket 7)	3
ENGL 101	English Composition (Gen Ed Bucket 1)	3
UGS 150	Gorilla Gateway (Gen Ed Bucket 7)	2
Bucket 060	Arts & Humanities (Gen Ed Bucket 6)	3

Bucket 070	Institutionally Designated (Gen Ed Bucket 7)		1
		SEMESTER TOTAL	15

Year 1: Spring

Course #	Course Name	SCH
GT 300	Engineering Design and Problem Solving	3
EET 141	Introduction to Electronics	3
ENGL 299	Introduction to Research Writing (Gen Ed Bucket 1)	3
Bucket 050	Social and Behavioral Sciences (Gen Ed Bucket 5)	3
Bucket 030	Math and Statistics (Gen Ed Bucket 3)	3
	SEMESTER TOTAL	15

Year 2: Fall

Course #	Course Name	SCH
GT 320	Communications Systems in Technology	3
MECET 121	Engineering Graphics (or CMCET 133)	3
COMM 207	Speech Communications (Gen Ed Bucket 2)	3
QBA 210	Business Statistics	3
MGT 330	Management and Organizational Behavior	3
	SEMESTER TOTAL	15

Year 2: Spring

Course #	Course Name	SCH
GT 330	Engineering Materials and Processes	3
GT 360	CAD for Automated Manufacturing	3
QBA 310	Business Analytics I	3
MKTG 330	Principles of Marketing	3
Bucket 040	Natural and Physical Sciences (Gen Ed Bucket 4)	4
	SEMESTER TOTAL	16

Year 3: Fall

Course #	Course Name	SCH
GT 390	Fundamentals of Robotics and Coding	3
GT 340	Power/Energy/Transportation Systems	3
QBA 410	Business Analytics II	3
MGT 430	Legal & Social Environment of Business	3
Bucket 060	Arts & Humanities (Gen Ed Bucket 6)	3
	SEMESTER TOTAL	15

Year 3: Spring

Course #	Course Name	SCH
GT 370	Construction Systems Technology	2
MGT 510	Operations Management	3
MGT 520	Quality Management	3
BUS 210	Business Professionalism (or AT 399)	3
EST 293	Introduction to Industrial Safety (or EST 296)	3
	SEMESTER TOTAL	14

Year 3: Summer

Course #	Course Name	SCH
ID 400	Internship for Industrial Distribution	3-6

Year 4: Fall

Course #	Course Name	SCH
GT 380	Manufacturing Enterprise	3
TM 606	Industrial Supervision	3
MGT 550	Supply Chain Management	3
TECH xxx	Technology Elective	3
	SEMESTER TOTAL	12

Year 4: Spring

Course #	Course Name	SCH
AT 416	Fluid Power	3
MKTG 430	Retail and Channels Management	3
TECH xxx	Technology Elective	3
Bucket 050	Social and Behavioral Sciences (Gen Ed Bucket 5)	3
100+	Open Elective or Technology Elective	3
	SEMESTER TOTAL	15

Total Number of Semester Credit Hours 120

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
Byron McKay*	Assoc Prof	EdD	Y	Technology & Engineering Ed	.26
Trevor Maiseroulle	Assist Instr Prof	EdD	Ν	Technology & Engineering Ed	.33
Matthew Brown	Assoc Instr Prof	EdS	N	Technology & Engineering Ed	.33
Future Position					1.0

Number of graduate assistants assigned to this program <u>1</u>

As proposed, the Supply Chain Management and Industrial Distribution program is a collaboration between the KCOB and CCOT. The curriculum for the Industrial Distribution major is modular in design – students take the university's General Education package, the foundational multi-disciplinary core consisting of sixty (60) hours, fifteen (15) hours of support courses and eleven (11) hours of electives. As described above, the core is equally split between the KCOB and the CCOT and includes an internship. Since all of the General Education and core courses are already established and have adequate capacity to absorb the projected new Industrial Distribution majors, the table below lists only those individual faculty who will teach the CCOT's share of major core courses. (The remaining major core courses will be reflected in the proposal for the KCOB's proposal for the BBA in Supply Chain Management.)

IX. Expenditure and Funding Sources

All faculty members who will teach the CCOT's share of Industrial Distribution courses are already on staff. The salary and fringe benefits numbers below for the first year are taken from the Pitt State FY25 budget prorated by the share of their FTE assignment to the program. The corresponding numbers for the second and third year reflect an increase of two percent annual increase (the average wage increase for Pitt State faculty in recent years).

A. EXPENDITURES	First FY	Second FY	Third FY
Personnel – Reassigned or Existing Positions			
Faculty	\$58,014	\$59,174	\$60,357
Administrators (other than instruction time)	\$4,046	\$4,146	\$4,228
Graduate Assistants			· · · · · ·
Support Staff for Administration (e.g., secretarial)	\$369	\$376	\$383
Fringe Benefits (total for all groups)	\$20,899	\$21,306	\$21,732
Other Personnel Costs			
Total Existing Personnel Costs – Reassigned or Existing	\$83,328	\$85,002	\$86,700
Personnel – New Positions			
Faculty			
Administrators (other than instruction time)			
Graduate Assistants			
Support Staff for Administration (e.g., secretarial)			
Fringe Benefits (total for all groups)			
Other Personnel Costs			
Total Existing Personnel Costs – New Positions	NA	NA	NA
Total Existing Personnel Costs – New PositionsStart-up Costs - One-Time Expenses	NA	NA	NA
Total Existing Personnel Costs – New Positions Start-up Costs - One-Time Expenses Library/learning resources	NA	NA	NA
Total Existing Personnel Costs – New Positions Start-up Costs - One-Time Expenses Library/learning resources Equipment/Technology	NA \$10,000	NA \$50,000	NA \$50,000
Total Existing Personnel Costs – New Positions Start-up Costs - One-Time Expenses Library/learning resources Equipment/Technology Physical Facilities: Construction or Renovation	NA \$10,000	NA \$50,000	NA \$50,000 \$10,000
Total Existing Personnel Costs – New Positions Start-up Costs - One-Time Expenses Library/learning resources Equipment/Technology Physical Facilities: Construction or Renovation Other	NA \$10,000	NA \$50,000	NA \$50,000 \$10,000
Total Existing Personnel Costs – New Positions Start-up Costs - One-Time Expenses Library/learning resources Equipment/Technology Physical Facilities: Construction or Renovation Other Total Start-up Costs	NA \$10,000 \$10,000	NA \$50,000 \$50,000	NA \$50,000 \$10,000 \$60,000
Total Existing Personnel Costs – New Positions Start-up Costs - One-Time Expenses Library/learning resources Equipment/Technology Physical Facilities: Construction or Renovation Other Total Start-up Costs	NA \$10,000 \$10,000	NA \$50,000 \$50,000	NA \$50,000 \$10,000 \$60,000
Total Existing Personnel Costs – New Positions 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	NA \$10,000 \$10,000	NA \$50,000 \$50,000	NA \$50,000 \$10,000 \$60,000
Total Existing Personnel Costs – New Positions 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 (Expendable supplies)	NA \$10,000 \$10,000 \$500	NA \$50,000 \$50,000 \$750	NA \$50,000 \$10,000 \$60,000 \$1,000
Total Existing Personnel Costs – New Positions 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 (Expendable supplies) Library/learning resources	NA \$10,000 \$10,000 \$500	NA \$50,000 \$50,000 \$750	NA \$50,000 \$10,000 \$60,000 \$1,000
Total Existing Personnel Costs – New Positions 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 (Expendable supplies) Library/learning resources Equipment/Technology (portable tools and tooling)	NA \$10,000 \$10,000 \$500 \$500	NA \$50,000 \$50,000 \$50,000 \$50,000 \$500	NA \$50,000 \$10,000 \$60,000 \$1,000 \$1,000
Total Existing Personnel Costs – New Positions 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 (Expendable supplies) Library/learning resources Equipment/Technology (portable tools and tooling) Travel (Training, seminars, conferences based on rotation)	NA \$10,000 \$10,000 \$10,000 \$500 \$500 \$5,000	NA \$50,000 \$50,000 \$50,000 \$750 \$500 \$5,000	NA \$50,000 \$10,000 \$60,000 \$1,000 \$1,000 \$5,000
Total Existing Personnel Costs – New Positions 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 (Expendable supplies) Library/learning resources Equipment/Technology (portable tools and tooling) Travel (Training, seminars, conferences based on rotation) Other	NA \$10,000 \$10,000 \$500 \$500 \$5,000	NA \$50,000 \$50,000 \$50,000 \$750 \$500 \$5,000	NA \$50,000 \$10,000 \$60,000 \$1,000 \$1,000 \$5,000
Total Existing Personnel Costs – New Positions 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 (Expendable supplies) Library/learning resources Equipment/Technology (portable tools and tooling) Travel (Training, seminars, conferences based on rotation) Other Total Operating Costs (Does not account for inflation)	NA \$10,000 \$10,000 \$10,000 \$500 \$500 \$5,000 \$6,000	NA \$50,000 \$50,000 \$50,000 \$750 \$500 \$5,000 \$6,250	NA \$50,000 \$10,000 \$60,000 \$60,000 \$1,000 \$1,000 \$5,000 \$5,000

GRAND TOTAL COSTS	\$99,328	\$141,252	\$153,700
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B. FUNDING SOURCES (projected as appropriate)	Current	First FY (New)	Second FY (New)	Third FY (New)
Tuition / State Funds	0	\$84,000	\$168,000	\$153,700
Student Fees	0	\$3,600	\$7,200	\$9,900
Other Sources (Crossland Funding)	0	\$11,728		
GRAND TOTAL FUNDING		\$99,328	\$175,200	\$163,600
C. Projected Surplus/Deficit (+/-) (Grand Total Funding <i>minus</i> Grand Total Costs)		(\$0)	\$39,948	\$9,900

X. Expenditures and Funding Sources Explanations

A. Expenditures

Personnel – Reassigned or Existing Positions

The proposed collaborative Supply Chain Management and Industrial Distribution Program is primarily a "repackaging" of existing courses and curricula within the KCOB and the CCOT. Only two new courses were created to complete the major core. Thus, nearly all of the courses are already available and being taught by existing faculty members on staff. Currently, due to the recent declines in campus enrollment, there is capacity within the current and planned schedule of course offerings to accommodate the new students projected to enroll in the proposed program. This program will allow the two colleges to more efficiently utilize their existing resources by filling currently empty seats.

Personnel – New Positions

No new positions are required to operate the proposed Supply Chain Management and Industrial Distribution Program. With the addition of the two new courses, all other courses and curricula are already in place and being taught by current KCOB and CCOT faculty members. Due to the recent declines in enrollment at Pitt State, classroom capacity exists to accommodate the number of new students projected to enroll in the proposed program. New positions will only be required in the future if program enrollment grows overall total enrollment in the colleges beyond previously experienced levels.

Start-up Costs – One-Time Expenses

Due to the hands-on, activity-based nature of the industrial distribution program, equipment costs will be higher than the Supply Chain Management degree. Modifying general technology courses to add focused content of industrial distribution will require some new equipment, tools and software. Each year/semester courses will be modified until the full curriculum is supported with appropriate equipment, tooling, and software. The second and third year will see the most one-time expenses because the dedicated industrial distribution classes will require dedicated software, equipment and tools to support curricular development. Equipment costs will include but is not limited to robotics, simulators, and logic control, which will be needed for instructional delivery. Cost for equipment and faculty training will come from the CCOT Technology Fee as well as Crossland Technology Center annual funding.

Operating Costs – Recurring Expenses

Laboratory courses will require supplies to complete assignments and projects. As enrollment grows this cost will increase due to the materials used. Recurring tooling costs as well as equipment replacement is inevitable with equipment which has been and is used in other programs. This is an estimated replacement cost for jig and fixture tooling, operational tooling, tools/power tools that are end of life and need replacement. The recurring costs will be taken from the CCOT Technology Fee for CTC Funding. Travel will be for training/education of faculty to teach ID concepts. These educational opportunities might be in the form of workshops, seminars, conferences, industry training, etc. Educational funding will be provided by the annual CTC funding.

B. Revenue: Funding Sources

All major core faculty positions in the Crossland College of Technology are fully funded by Pittsburg State University through annual state appropriations, annual Crossland funding and self-generated student tuition and fees revenue. Because the proposed Industrial Distribution major is built by repurposing existing courses and curricula, and because we currently have excess capacity due to recent enrollment declines, no new revenues will be required to operate the program. *The revenue to operate the program is already in our annual budget*. Thus, the revenues presented in the table above are shown to offset the expected personnel and operating expenses to produce net incremental cost of zero during the first year based on PSU's current tuition rate of \$8,400, as well as supplemental Crossland funding. However, if the projected student enrollments in the program meet the targets listed in Table 5, a net surplus will be generated as described below.

C. Projected Surplus/Deficit

Initially, the program is expected break even due to initial enrollment estimates and other funding sources. The funding will be adequate to cover the initial costs of the program based on the projected revenue. Year two will have the best potential for being net neutral or have positive gains based on projected increased enrollment numbers by adding the enrollment for year one and year two. This results in 20x\$8,400 or \$168,000 which exceeds the total cost of running the program by \$39,948. Obviously, any enrollment above the projected level adds to the program's "profit."

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MAP OF SUPPLY CHAIN MANAGEMENT AND INDUSTRIAL DISTRIBUTION

GENERAL EDUCATION (34 Hours) 6 Hrs English	Prefix	Number	Title English Composition	HRS	BBA Supply Chain 3	BST Industrial Distribution 3
	ENGL	299	Intro to Research Writing	3	3	3
3 Hrs Communication	COMM	207	Speech Communication	3	3	3
3 Hrs Mathematics	MATH MATH	113 143	College Algebra or Elementary Statistics or	3	3	3
	MATH	XXX	Higher Level Course			
3 Hrs Science	TBD	XXX	Restricted Student Choice	3	3	3
6 Hrs Social & Behavioral Science	TBD TBD	XXX	Restricted Student Choice *	3	3	3
	TDD	ллл	Resultied Student Choice	5	5	5
6 Hrs Arts & Humanities	TBD TBD	XXX XXX	Restricted Student Choice Restricted Student Choice**	3 3	3 3	3 3
6 Hrs University Designated	UGS	150	Gorilla Gateway	2	2	2
	TBD TBD	XXX	Restricted Student Choice	1	1	1
	TDD	ллл	Restreted Student Choice	5	5	5
KELCE CORE PREREQUISITES (9 I	Hours)	130	Computer Information Systems	3	3	
	ECON	200	Principles of Microeconomics	3	3	
	ECON	201	Principles of Macroeconomics	3	3	
KELCE CORE (42 Hours)						
	ACCT	201	Financial Accounting	3	3	
	ACCT	202	Managerial Accounting	3	3	
	DSIS	420	Management Information Systems	3	3	
	ECON	XXX 326	Restricted Student Choice	3	3	
	BUS	101	Introduction to Business	3	3	
	BUS	201	Business Professionalism	3	3	
	MGT	330	Management and Organizational Behavior	3	3	3
	MGT	430	Legal and Social Environment of Business	3	3	3
	MGT	690	Business Strategy	3	3	
	MKTG	330	Principles of Marketing	3	3	3
	QBA	210	Business Statistics	3	3	3
	QBA QBA	310 410	Business Analytics I Business Analytics II	3	3	3
COT PREREOUSITES (3 Hours)						
	GT	210	Survey of Technological Systems	3	3	3
COT BST Support Courses (30 Hours)						
	MECET	121	Engineering Graphics (or CMCET 133 Construction Graphics)	3		3
	EET EST	141 293	Introduction to Electronics Introduction to Industrial Safety (or	3 3		3 3
	GT GT	320 360	ES1296 Intro to Construction Safety) Communication Systems CAD for Automated Manufacturing	3		3
	01	500	Crip for rutomated Manufacturing	5		5

	GT	380	Manufacturing Enterprise Prof Day in the Trans Industry (or	3		3
	AI	399	MGT 210 Business Professionalism)	3		3
	AT	400	Fluid Power	3		3
	MFGET	405	Quality Control	3		3
	TM	606	Industrial Supervision	3		3
SUPPLY CHAIN & INDUSTRIAL DIS	STRIBUTIO	ON (27 Hours	3)			
	ID	210	Industrial Distribution Fundamentals	3	3	3
	GT	300	Engineering Design & Problem Solving	3	3	3
	GT	340	Power/Energy/Transportation Systems	3	3	3
	GT	380	Manufacturing Enterprise	3	3	3
	MGT	510	Operations Management	3	3	3
	MGT	520	Quality Management	3	3	3
	MGT	550	Supply Chain Management	3	3	3
	MKTG	430	Retail and Channels Management	3	3	3
	MGT	671	Internship in Supply Chain Management	3	3	
	ID	400	Internship for Industrial Distribution	3		3
ELECTIVE COURSES (5 to 11 Hours)	1					
Suggested	ACCT	201	Financial Accounting	3		3
	GT	370	Construction Systems	2		2
	GT	390	Fundamentals of Coding and Robotics	3		3
	TBD	Xxx	Electives (As approved by advisor/mentor)			

TOTAL HOURS FOR DEGREE

120

120

*ECON201 Recommended

** MECET121, GT210 or MGT101 Recommended

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. April 16, 2025

I. General Information

A.	Institution	Wichita State University
B.	Program Identification	
	Degree Level:	Master's
	Program Title:	Applied Behavior Analysis
	Degree to be Offered:	Master of Education - Applied Behavior Analysis
	Responsible Department or Unit:	College of Applied Studies, Department of Intervention Services and Leadership in Education (ISLE) Department
	CIP Code:	42.2814
	Modality:	Online
	Proposed Implementation Date:	August 1, 2025
	Total Number of Semester Credit I	Hours for the Degree: <u>36</u>

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

Students will be securing their employment with a school district/cooperative or ABA clinic to complete field experience and training hours. Faculty will support candidates in this process by discussing the current and previous sites students have been placed. Students may also work with faculty to secure a new location if appropriate affiliation agreements are completed with the partner and the program. Dr. Angela Beeler, the program coordinator, will work to complete an approved affiliation agreement through general counsel similar to the agreements currently in place for the school psychology program. Supervision of applied experiences will be offered remotely via telehealth, as it is currently offered in the school psychology field experiences. These methods of supervision comply with the Behavior Analyst Certification Board (BACB) standards for fieldwork supervision and satisfy requirements for credentialing (Behavior Analyst Certification Board Handbook, 2024).

III. Justification

The Applied Behavior Analysis (ABA) Master's program would prepare a variety of school and community professionals with the knowledge and experience needed to better understand human behavior. Training in ABA would positively impact a wide variety of individuals with behavioral needs. The ABA Master's Program is focused on addressing the needs for school professionals and community service providers to address challenging behaviors of children and youth that interfere with the teaching and learning required to increase K-12 student outcomes. Broadly, ABA is a science that uses learning principles to improve socially important behavior. The practice of applied behavior analysis is focused on assessing environmental influences on behavior, function-based intervention, and data-based decision making. As such, ABA can address the behavioral needs of individuals in multiple areas, including education, counseling, gerontology and more.

The field of ABA is expected to grow by 22% by 2034 (Yellow Bus ABA Therapy, 2024) primarily because of the growing Autism Treatment Market that has widely accepted ABA as an evidence-based treatment option

(Autism Treatment Market, 2022). The interdisciplinary nature of this program exists in the space where students and instructors from a variety of educational backgrounds, experiences, fields, and/or disciplines come together to learn about the science of behavior analysis and then explore how to apply it ethically across multiple settings. ABA is the leading evidence-based treatment approach for autism, as well as for other developmental disabilities, but there appears to be a shortage of qualified ABA professionals in Kansas (McClendon et al., 2019). There are over 450 current jobs for Board Certified Behavior Analysts (BCBAs) and related fields credentialed with ABA training currently posted on Indeed.com alone with the average salary at \$71,327. The average salary is based on a nationwide average. In 2023 there were 61,112 new BCBA jobs posting nationwide; 999 of those were in the state of Kansas, which constituted a 228.6% increase from the previous year.⁵ The annual nationwide demand for professionals possessing BCBA certification has consistently risen each year since 2010, experiencing a notable 14% increase from 2022 to 2023. There is a clear need for trained ABA professionals across multiple professional fields nationwide. The applied focus of ABA, combined with the applied training opportunities for students.

The proposed 36-credit hour ABA Master's Program includes 21 credit hours from the WSU ABA certificate, which was approved through the Association for Behavior Analysis International (ABAI) as a verified course sequence (VCS) in 2019. The ABA certificate courses provide the training required to become a Board-Certified behavior analyst; however, a master's degree (or higher) is required to be eligible to sit for the BCBA exam. Currently, students take the certificate in route to an EdS in school psychology or after the completion of a master's degree option that directly aligns with the ABA certificate and allow students to be eligible to become a BCBA without completing a degree in a different field.

IV. Program Demand:

A. Survey of Student Interest

Number of surveys administered:	150
Number of completed surveys returned:	47
Percentage of students interested in program:	89%

There is an increasing demand for professionals proficient in applied behavior analysis (ABA) across a broad spectrum of sectors, including non-profit organizations, social service agencies, educational establishments, private enterprises, and beyond, where expertise in human behavior is critical. Consequently, the program is anticipated to attract candidates from diverse educational and experiential backgrounds. Additionally, applicants that complete the master's degree in ABA and choose to further their education through applying for an Educational Specialist (EdS) degree in School Psychology will be able to work in the field of ABA while they pursue the EdS degree, ultimately broadening their career possibilities and shortening the duration to employment while they further their education.

In line with these expectations, a survey was conducted to gauge the interest level in an Applied Behavior Analysis Master's program among current students and alumni of the school psychology program and the ABA VCS. A total of 150 surveys were emailed, aiming to capture a wide range of perspectives on the potential integration of ABA training into their educational and professional pathways. A total of 47 individuals responded indicating their current or past enrollment in the WSU School Psychology (SP) program and/or the ABA program. Of the 47 responses, one was not fully completed and therefore not included in the following breakdown:

Affiliation	Current SP	SP Alumni	Current ABA VCS
	Students		Students
Total Responses	60%	36%	2%
Would apply current ABA work toward	89%	89%	100%
Master's in ABA or return to WSU to			
complete Master's program			
If Master's degree en route was an	75%	83%	100%
option, would have pursued that			
enrollment			

Given the data, it is clear that there is a strong interest among both current students and graduates of the WSU School Psychology and ABA VCS programs in furthering their education through a Master's degree in ABA. This interest is particularly pronounced when the opportunity to integrate this degree into their existing educational path with minimal additional credit-hour requirements is presented. Such integration not only promises to diversify career options but also to expedite the professional readiness of students while they continue their education. These results offer compelling evidence for the integration of an ABA Master's program into the existing curriculum, promising to meet the aspirations and needs of our educational community.

B. Market Analysis

On a national scale, demand for individuals holding BCBA or BCBA-D certification has consistently increased each year since 2010. From 2022 to 2023 alone, this demand grew by 14%. In Kansas, the growth in demand for BCBAs was even more pronounced, with job postings for BCBAs increasing by a staggering 228.6% in the same period (Behavior Analyst Certification Board, 2024). The demand for Applied Behavior Analysis (ABA) services in Kansas has dramatically increased, particularly for individuals with Autism Spectrum Disorder (ASD), yet access remains limited. In 2017, only 153 of 5,405 children with an ASD diagnosis in KanCare received ABA services, highlighting a significant gap in care. Families face long wait times-over two years for KanCare recipients and 19 months for those with private insurance (McClendon et al., 2019) —due to a lack of qualified providers. A recent local news segment highlights the urgent need for more ABA professionals in Wichita, as local clinics fill their capacity within a year, leaving families facing long wait times for autism therapy (Lytle, 2024). While existing programs nearby, such as at Oklahoma State University and the University of Kansas (KU), contribute to the field, the increasing job postings within the field demonstrates a need for additional training programs.. The creation of a master's program in Applied Behavior Analysis in Wichita, Kansas is essential to addressing the significant and growing demand for ABA services, particularly for individuals with ASD, by addressing this workforce shortage, allowing residents to pursue BCBA certification and creating a direct pipeline of behavior analysts to serve the region. This would reduce wait times and improve access, especially in underserved and rural areas, while also addressing economic barriers by increasing competition and insurance coverage options.

Finally, an important distinction between this proposed new program at WSU and the existing master's degree at KU centers on the proposed new program's alignment with WSU's Ed.S.-School Psychology degree. KU's program is a M.A. in Applied Behavioral Science, housed in its College of Liberal Arts and Sciences. Per available catalog information, students completing that degree can only count six of those hours toward KU's Ed.S.-School Psychology, which requires 59-64 credits and is housed in its College of Education. Both the proposed M.Ed.-ABA master's and the Ed.S.-School Psychology at WSU are housed within the College of Applied Studies, and using School Psychology post-master's option, students would be able to count all 36 credit hours from their master's degree toward the Ed.S. degree's 66 credit-hour requirement.

Year	Total Headcount Per Year		Total Sem Credit Hrs Per Year	
	Full- Time	Part- Time	Full- Time	Part- Time
Year 1	8	4	144	36
Year 2	12	6	216	54
Year 3	18	8	324	72

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

VI. Employment

Students can complete the Master's in ABA and enter the field or en route to their School Psychology EdS degree. This master's degree opens up an additional career path where graduates can work as independent practitioners, offering behavior-analytic services across a spectrum of needs and settings. The demand for such specialized skills is more than just a trend; it's a reflection of the growing recognition of ABA's effectiveness in addressing a wide range of behavioral and developmental issues.

Labor market analyses, including data from the Behavior Analyst Certification Board (BACB), affirm the growing need for ABA professionals. Since 2010, the demand for certified behavior analysts has consistently risen, with a notable 23% increase from 2021 to 2022. Specifically, in Kansas, there has been a 228.6% surge in demand (Behavior Analyst Certification Board, 2024). This upward trend is not confined to a single region; states like California, Massachusetts, Texas, Florida, and New Jersey have emerged as hotspots, offering a wealth of opportunities for ABA professionals.

ABA's appeal is enriched by its diverse subspecialties, ranging from Autism and Other Developmental Disabilities to Behavioral Gerontology, and from Organizational Behavior Management to Public Health. Each subspecialty offers unique opportunities to impact various societal challenges positively. Whether it's making strides in the field of Behavioral Pediatrics, contributing to advancements in Brain Injury Rehabilitation, or pioneering efforts in Substance Use Disorders, ABA professionals are equipped with the skills and knowledge to lead change. The specialization achieved through a Master's degree in ABA not only provides a competitive edge in the job market, but also equips graduates with a deep understanding of behavior principles and their application. This expertise is increasingly recognized across sectors, including healthcare, education, and corporate environments, expanding employment opportunities beyond traditional settings.

VII. Admission and Curriculum

A. Admission Criteria

The admission requirements will include a bachelor's degree, a cumulative GPA of 3.000 or higher based on the last 60 credit hours of undergraduate or graduate coursework, three letters of recommendation, a goal statement indicating reasons for pursuing degree, and resume.

B. Curriculum

ABA	Masters	Req	uirem	ients	

CESP 704 Introduction to Educational Statistics
CLES 712 Philosophical Underpinnings of ABA
CESP 858 Introduction to Assessment, Research, and Program Evaluation
CLES 715 Concepts and Principles of Behavior Analysis
CLES 721 Fundamental Elements of Behavior Change and Behavior Change Procedures
CLES 723 Single Subject Design

CESP 853 Ethics in ABACESP 914 ConsultationCESP 859 Curriculum Based Assessment and InterventionCLES 725: Nonverbal Assessment and Intervention*CLES 943: School Based Behavioral Interventions*CLES 944: Field Experience in ABA*

*Indicates a new course

Program Sequence: Full-Time Students

Year 1: Fall	SCH = Sem	ester Credit Hours
Course #	Course Name	SCH
CLES 712	Philosophical Underpinnings of ABA	3
CLES 715	Concepts and Principles of Behavior Analysis	3
CESP 704	Introduction to Educational Statistics	3

Year 1: Spring

Course #	Course Name	SCH
CLES 725	Non-Verbal Assessment and Intervention	3
CLES 943	School Based Behavioral Interventions	3
CLES 858	Introduction to Assessment, Research, and Program Evaluation	3

Year 2: Fall

Course #	Course Name	SCH
CESP 859	Curriculum Based Assessment and Intervention	3
CESP 853	Ethics in ABA	3
CLES 721	Fundamental Elements of Behavior Change and Behavior Change	3
CLES /21	Procedures	5

Year 2: Spring

Course #	Course Name	SCH
CLES 914	Consultation	3
CLES 944	Field Experience in ABA	3
CLES 723	Single Subject Design	3

Total Number of Semester Credit Hours 36	6
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Program Sequence: Part-Time Students

Year 1: Fall SCH = Semeste		er Credit Hours
Course #	Course Name	SCH
CLES 712	Philosophical Underpinnings of ABA	3
CESP 704	Introduction to Educational Statistics	3

Year 1: Spring

Course #	Course Name	SCH
CLES 715	Concepts and Principles of Behavior Analysis	3
CLES 858	Introduction to Assessment, Research, and Program Evaluation	3

Year 2: Fall

Course #	Course Name	SCH
CLES 725	Non-Verbal Assessment and Intervention	3
CLES 943	School Based Behavioral Interventions	3

Year 2: Spring

Course #	Course Name	SCH
CLES 721	Fundamental Elements of Behavior Change and Behavior Change Procedures	3
CESP 859	Curriculum Based Assessment and Intervention	3

Year 3: Fall

Course #	Course Name	SCH
CLES 914	Consultation	3
CESP 853	Ethics in ABA	3

Year 3: Spring

Course #	Course Name	SCH
CLES 944	Field Experience in ABA	3
CLES 723	Single Subject Design	3

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
Angela Beeler*	Assistant Professor, Program Chair	PhD	Y	Educational Psychology and Applied Behavior Analysis	0.25
Patty Nuhfer	Assistant Professor	PhD	Y	Educational Psychology and Applied Behavior Analysis	0.25
LaKaya Beiker	Clinical Professor	EdS	Ν	School Psychology	0.25

IX. Expenditure and Funding Sources

A. EXPENDITURES	First FY	Second FY	Third FY
Personnel – Reassigned or Existing Positions			
Faculty*	\$3,755	\$3,830	\$3,906
Administrators (other than instruction time) (Chair at 0.05)	\$5,875	\$5,992	\$6,112
Graduate Assistants**	0	0	0

Support Staff for Administration (<i>e.g., secretarial</i>) (0.05)	\$1,851	\$1,888	\$1,926
Fringe Benefits (total for all groups)***	\$2,318	\$2,364	\$2,411
Other Personnel Costs	0	0	0
Total Existing Personnel Costs – Reassigned or Existing	\$13,799	\$14,074	\$14,355
Personnel – New Positions			
Faculty – Two lecturers – 1 course each	\$4,800	\$5,000	\$5,200
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	\$4,800	\$5,000	\$5,200
Start-up Costs - One-Time Expenses			
Library/learning resources	0	0	0
Equipment/Technology	0	0	0
Physical Facilities: Construction or Renovation	0	0	0
Other	0	0	0
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	\$18,599	\$19,074	\$19,555

*-Minimal costs assigned for current faculty because they are already teaching most of the courses required for the M.Ed.-ABA degree as part of the current ABA VCS. One current faculty member will receive overload pay for teaching one of the three new courses in the master's degree.

**-No additional costs as the three graduate assistant positions that will support this program are already in place within the current Ed.S.-School Psychology.

***-Fringe calculated only for the additional portion of faculty, department chair and administrator roles that would be assigned to this program.

B. FUNDING SOURCES	First FY (New)	Second FY (New)	Third FY (New)
Tuition / State Funds	\$61,020	\$91,530	\$134,244
Student Fees	\$23,400I	\$35,100I	\$51,540
Other Sources – Applied Learning Support	0	\$24,000	\$36,000
GRAND TOTAL FUNDING	\$84,420	\$150,630	\$221,784
C. Projected Surplus/Deficit (+/-) (Grand Total Funding <i>minus</i> Grand Total Costs)	\$65,821	\$131,556	\$202,229

X. Expenditures and Funding Sources Explanations

A. Expenditures

Personnel – Reassigned or Existing Positions

All three of the core school psychology faculty are also the instructors for the ABA certificate and will be the core faculty for the ABA Master's Program. Furthermore, since the ABA program courses are already integrated into the school psychology program, the core faculty members already teach seven of the 12 courses. Two of the courses are taught by adjuncts that are board certified behavior analysts (BCBA) in the field. In addition to the nine courses that currently exist, there will be three new courses added to complete the master's degree program in ABA, which will be taught by the core faculty and lecturers. There will not be any role reassignments or changes for the core faculty. GRA's assigned to the School Psychology Faculty will also work under the ABA master's. Salaries assume a 2% increase each year.

Personnel – New Positions

Costs associated with hiring two lecturers to teach one course each are included. Salaries assume a \$100 increase per course each year.

Start-up Costs – One-Time Expenses

None

Operating Costs – Recurring Expenses

None additional given current Ed.S.-School Psychology program and ABA VCS support already in place.

B. Revenue: Funding Sources

The amounts above were figured based on 2024-25 online graduate student tuition and fee rates. For example, in year one, the program is estimated to have eight full time students that will take 18 credit hours each in year one at \$339 per credit hour. In addition, it was estimated that there would be four part time students would take an estimated 9 credit hours in year one. Mandatory university-level fees total \$765 per full-time student, \$270 per part-time students per semester. The ISLE department has a standard program fee of \$150 per student each semester. The department also has course fees and experiential learning fees. To simplify calculations a department rate of \$30 per credit hour was utilized.

C. Projected Surplus/Deficit

As a result of the efficiencies involved in simply expanding the current ABA VCS, the new master's program is revenue positive in year one and grows its surplus each year.

XI. References

- Autism Treatment Market In U.S. Is Larger Than Expected \$4+ Billion (2022, September 7). *Web News Wire, NA*.Retrieved from <u>https://link-gale-</u> com.proxy.wichita.edu/apps/doc/A716381642/ITOF?u=ksstate_wichita&sid=summon&xid=e777c55e
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Wichita State University -M.Ed.-Applied Behavior Analysis

Revenue Calculations

Projected Enrollment by Year

Year	Total Headcount Per Year		Total Sem Credit Hrs Per Year		
	Full- Time	Part- Time	Full- Time ¹	Part- Time ²	Total
Implementation	8	4	144	36	180
Year 2	12	6	216	54	270
Year 3	18	8	324	72	396

1 - Based on 18 credits per year

2-Based on 9 credits per year

Revenue Rates

Source	Amount	Note
Tuition	\$339	Online tuition rate
University Fee	\$765 (7 hrs+)	Per semester fee
	\$270 (<4 hrs)	
Program Fee	\$150	Per semester fee
Course Fees	\$30	Estimated rate per credit. All courses have a \$25 fee.
		Applied learning courses have an additional \$100
		supervision fee.

Revenue Calculations – Year 1 (Implementation)

Source	FT Student	PT Students	Total
Tuition	\$ 48,816.00	\$ 12,204.00	\$ 61,020.00
Total Fees ¹	\$ 18,960.00	\$ 4,440.00	\$ 23,400.00
-University Fee ²	\$ 12,240.00	\$ 2,160.00	
-Program Fee ³	\$ 2,400.00	\$ 1,200.00	
-Course Fees ⁴	\$ 4,320.00	\$ 1,080.00	
Other Sources ⁵			\$ 0
Total ⁶			\$ 84,420.00

Notes:

1 -Sum of University, Program and Course fees. This is the figure reported for Student Fees within the proposal.

2 - Based on head count. FT students @ 7 hrs+ rate. PT @ <4 hrs rate. Two semesters each.

3 - Based on head count. Two semesters @ \$150 each.

- 4 Based on SCH. \$30 per credit.
- 5 Applied learning support via KSBHCoE, the State of Kansas, and other sources
- 6 Sum of Tuition, Total Fees, and Other Sources

Revenue Calculations – Year 2

Source	FT Student	PT Students	Total
Tuition	\$ 73,224.00	\$ 18,306.00	\$ 91,530.00
Total Fees ¹	\$ 28,440.00	\$ 6,660.00	\$ 35,100.00
-University Fee ²	\$ 18,360.00	\$ 3,240.00	
-Program Fee ³	\$ 3,600.00	\$ 1,800.00	
-Course Fees ⁴	\$ 6,480.00	\$ 1,620.00	
Other Sources ⁵			\$ 24,000.00
Total ⁶			\$ 150,630.00

Notes:

1 – Sum of University, Program and Course fees. This is the figure reported for Student Fees within the proposal.

2 - Based on head count. FT students @ 7 hrs+ rate. PT @ <4 hrs rate. Two semesters each.

3 – Based on head count. Two semesters (a) \$150 each.

4 – Based on SCH. \$30 per credit.

5 - Applied learning support via KSBHCoE, the State of Kansas, and other sources

6 – Sum of Tuition, Total Fees, and Other Sources

Revenue Calculations – Year 3

Source	FT Student	PT Students	Total
Tuition	\$ 109,836.00	\$ 24,408.00	\$ 134,244.00
Total Fees ¹	\$ 42,660.00	\$ 8,880.00	\$ 51,540.00
-University Fee ²	\$ 27,540.00	\$ 4,320.00	
-Program Fee ³	\$ 5,400.00	\$ 2,400.00	
-Course Fees ⁴	\$ 9,720.00	\$ 2,160.00	
Other Sources ⁵			\$ 36,000.00
Total ⁶			\$ 221,784.00
	•		

Notes:

1 – Sum of University, Program and Course fees. This is the figure reported for Student Fees within the proposal.

2 - Based on head count. FT students @ 7 hrs+ rate. PT @ \leq 4 hrs rate. Two semesters each.

3 – Based on head count. Two semesters @ \$150 each.

4 – Based on SCH. \$30 per credit.

5 - Applied learning support via KSBHCoE, the State of Kansas, and other sources

6 – Sum of Tuition, Total Fees, and Other Sources

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.

April 16, 2025

I. General Information

A.	Institution:	Wichita State University
B.	Program Identification	
	Degree Level:	Master's
	Program Title:	Master of Forensic Biology
	Degree to be Offered:	Master of Science
	Responsible Department or Unit:	School of Criminal Justice
	CIP Code:	43.0406
	Modality:	Traditional Classroom Instruction and Online
	Proposed Implementation Date:	Fall 2025

Total Number of Semester Credit Hours for the Degree: 34

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

Students in the Forensic Biology Master of Science program will have applied learning activities with local and regional forensic laboratories. These forensic laboratories will include the new laboratory that the Bureau of Alcohol, Tobacco, Firearms and Explosives (https://www.atf.gov/) is building on Wichita State University's Campus.

III. Justification

Wichita State University (WSU) and the Fairmount College of Liberal Arts and Sciences request the Kansas Board of Regents approval to create the Master of Science (MS) in Forensic Biology degree. If approved, the degree will position Wichita State as the only national training site for the Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) located on a public university campus, broadening the reach of Kansas institutions to other states. It will also enable the University to ensure a talent pipeline for forensic biologists who perform a critical function within the criminal justice and investigation system in Kansas, including local and state law enforcement agencies as well as national (ATF and FBI). The proposed degree program will support students at WSU as well as throughout the state of Kansas. Consequently, students at Emporia State University and Fort Hays State University will have opportunities to continue their education and training as forensic scientists, including criminal intelligence officers and/or firearms analysts. These collaborations will support Wichita State University's mission "as an essential educational, cultural, and economic driver for Kansas and the public good." With the aspiration to be one of the nation's premier urban public research universities, the Center for Excellence and National Integrated Ballistic Information Network (NIBIN) buildings and laboratories on the WSU Campus will provide impactful applied learning experiences for students. This will be a key economic driver for the region. Finally, this will raise WSU's profile as the only University in the nation with a formal training site for firearms, ballistics, and forensic biology outside Washington, D.C.

There are no programs within a 150-mile radius of Wichita State University that are focused specifically on

forensic biology. However, there are three programs within 150 miles of Wichita State University that offer a Master of Science in Forensic Science with an emphasis or concentration in forensic biology.

- 1. The University of Central Oklahoma located in Oklahoma 143 miles from Wichita
- 2. Oklahoma State University located in Oklahoma 127 miles from Wichita
- 3. Emporia State University located in Kansas 77 miles from Wichita

WSU's proposed program will stand out and differ from those above. The Master of Science (MS) in Forensic Biology will provide the skills and knowledge needed to be employed as a forensic biologist within a federal agency (*e.g.*, ATF) or a local/state crime lab. This addition to the strong curricular offerings in the School of Criminal Justice will enhance the recruitment of students to Wichita State University. As the only university in the nation with a full-service ATF lab on campus, WSU will be able to offer a unique program that will attract students from across the country. This program will complement the MS at Emporia State, giving students a choice between a forensic science focus at WSU and a crime-scene investigation focus at ESU. This new degree program will have applied learning opportunities with the ATF and other local/state crime labs that will boost the visibility of the Fairmount College of Liberal Arts and Sciences along with the School of Criminal Justice.

IV. Program Demand:

A. Survey of Student Interest

- Number of surveys administered: Surveys were distributed to students in Criminal Justice, Forensic Science, and Homeland Security courses.
- Percentage of students interested in the program: Of the 64 students, 52 had some interest, with 26 having a strong interest in a Master of Forensic Biology program.

Undergraduate students taking courses in the undergraduate Forensic Science program expressed the most interest in the Forensic Biology MS degree.

ATF projects that 100 students will enroll in the WSU proposed Master of Forensic Biology degree program. The School of Criminal Justice projects a more conservative estimated enrollment of an inaugural class of 25 students, with 30 admitted each year to a new cohort. Therefore, when the MS in Forensic Biology is fully up and running after three years, there will be at least 60 students in the degree program.

The School of Criminal Justice has 433 undergraduate students: 276 (89 seniors) pursuing a criminal justice degree, 129 (37 seniors) pursuing a degree in forensic science, and 28 (11 seniors) pursuing a homeland security degree.

The Department of Biological Sciences had 327 undergraduate students in the fall of 2024, 140 of whom were in their senior year. These students will be another cohort of students who could potentially be interested in applying for the MS in Forensic Biology.

The Department of Chemistry and Biochemistry will have 130 undergraduate students in the fall of 2024, 52 of whom are in their senior year. These students will also be another cohort of students who could potentially be interested in applying for the Master of Forensic Biology.

With nearly 900 students from these three undergraduate programs at WSU, including 329 seniors, and the ATF providing another pool of potential applicants, the modest projections of 25-30 students in a cohort a year appear

attainable.

B. Market Analysis

While employment in forensic science-related occupations is expected to expand through 2031, this increase will lag total job growth in every reviewed geographical region.

Over the next decade, employment demand for related occupations is projected to increase by 0.3 percent in Kansas, while the projected growth for all occupations in the state is 2.5 percent. Similarly, national demand for forensic science-related occupations is expected to grow by 4.7 percent, which is slower than the national average growth for all occupations of 5.3 percent. This trend is also observed at the regional level. However, state and regional projections will likely change as the new ATF's forensic lab is expected to employ 80-100 positions when fully staffed.

Among observed occupations, Detectives and Criminal Investigators are the largest group by demand volume; Biological Technicians are the fastest-growing group.

The need for a master's degree in forensic science-related occupations is dependent on the specialty of the employer. According to the American Academy of Forensic Scientists, "many disciplines" within General Forensics "require a master's or a doctoral degree," with experience requirements varying by education level and sub-field of interest. Additionally, most fields of specialization require employees to pursue continuing education in their field to keep up with new developments. For example, "criminalists must continually increase their knowledge in their discipline."

Year	Total Headcount Per Year		Total Sem Credit Hrs Per Year	
	Full-Time*	Part-Time	Full- Time	Part-Time
Implementation	25 00 (25 Total)	0	550	0
Year 2	30 25 (55 Total)	0	960	0
Year 3	30 30 (60 Total)	0	1020	0

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

*The cells in the full-time column separate Year One students in the program from Year Two students using this format XX | XX.

The MS in Forensic Biology would prepare students to work and process DNA in a working laboratory successfully. Students in the degree program will examine DNA from crime scenes as part of the applied learning in collaboration with the ATF (https://www.atf.gov/). Enrollment in the program would grow to at least 60 students in three years and serve as a talent pipeline for the ATF. The enrollment will phase in overtime with a first-year enrollment projection of 25 students, a second-year increase to 30 additional students, and a third-year increase to 30-40 students. The projected student count will be 60 plus students based on the projection of 100 students enrolled in the program by the ATF.

VI. Employment

The Bureau of Labor Statistics (BLS) notes that "overall employment of police and detectives is projected to grow 3 percent from 2022 to 2032, which is about as fast as the average for all occupations." In contrast, the BLS notes that "employment of biological technicians is projected to grow 5 percent from 2022 to 2032, faster than the average for all occupations."

VII. Admission and Curriculum

A. Admission Criteria

Admission to the graduate program in Forensic Biology requires a bachelor's degree in forensic science or natural science. A 3.0 GPA or higher in undergraduate work. The applicants for undergraduate work will be evaluated to determine if the applicant has sufficient scientific background to successfully complete the graduate program.

Applicants are expected to have nine credits for completed coursework in Biochemistry, Genetics, and Molecular Biology and should have at least one class in each area. If coursework deficiencies are identified, students may be required to take additional foundational undergraduate courses beyond those required for the graduate degree.

Additional requirements for admission into the Master of Forensic Biology program include:

- Three letters of recommendation, preferably from professors and/or supervisors familiar with your academic ability, work ethic, and skills.
- A statement of purpose describing your personal career goals and how the master's degree will support those goals, plus a brief description of experience or qualifications in support of the application.
- A Resume/CV/Vita. •

B. Curriculum

Year 1: Fall		SCH = Semester Credit Hours	
Course #	Course Name	11	
FS701	Forensic Science Overview I Seminar	1	
FS710	Forensic Biology I	4	
FS720	Population Genetics	3	
FS703	Professional Responsibility and Quality Assurance	3	

Year 1: Spring

Course #	Course Name	11
FS702	Forensic Science Overview II Seminar	2
FS721	Forensic Serology/DNA	3
FS711	Forensic Biology II	3
FS704	Applied Forensic Science Research Methods	3

Year 2: Fall

Course #	Course Name	9
FS712	Forensic Biology III	3
FS713	Forensic Biology Seminar	1
FS706	Criminal Law for Forensic Scientists	3
FS730	Capstone Research I	2

Year 2: Spring

Course #	Course Name	3
FS731	Capstone Research II	3

Total Number of Semester Credit Hours 34

VIII. Core Faculty

The proposed MS in Forensic Biology program will be housed within the School of Criminal Justice. The school
currently has five tenured/tenure-track faculty members and three non-tenure-track/instructors who will provide an overall foundation of support for the new degree program.

WSU will hire a director and adjunct instructors. Hiring a director with a PhD in Forensic Biology is a requirement for the program to become accredited by the Forensic Science Education Programs Accreditation Commission (FEPAC). FEPAC is a division of the American Academy of Forensic Sciences (AAFS). In addition, WSU will use adjunct instructors to support the program. The adjunct instructors will be forensic biologists who have worked in (or are currently working in) a forensic laboratory. An example of a potential adjunct instructor would be Steven Weitz, Chief of the Forensic Crime Gun Intelligence Laboratory. Using adjunct instructors will ensure that WSU's program stays current on current practices and prepares individuals to have successful careers as forensic biologists in today's environment.

Note: * Next to Faculty Name 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
New Hire* TBD	Professor	PhD	Y	Forensic Biology	1.0
New Hire TBD	2 x Adjunct Instructor	PhD or MS	Ν	Forensic Biology	2 x Teach 3 cr. hr.
New Hire Admin Support	Staff		N	Shared position with the Master of Forensic Biology	.5
Andrea Bannister	Professor and Chairperson	PhD in Criminal Justice	Y		0.1

Number of graduate assistants currently assigned to this program \dots

IX. Expenditure and Funding Sources

A. EXPENDITURES	First FY	Second FY	Third FY
Personnel – Reassigned or Existing Positions			
Faculty	\$0	\$0	\$0
Administrators (other than instruction time)	\$0	\$0	\$0
Graduate Assistants	\$0	\$0	\$0
Existing Faculty Reassigned .1 Chair	\$14,400	\$14,400	\$14,400
Fringe Benefits (total for all groups)	\$4,400	\$4,400	\$4,400
Other Personnel Costs	\$0	\$0	\$0
Total Existing Personnel Costs – Reassigned or Existing	\$18,800	\$18,800	\$18,800
Personnel – New Positions			
Faculty	\$80,000	\$80,000	\$80,000

Administrators (.5)	\$17,500	\$17,500	\$17,500
Adjunct Instructors	\$16,000	\$16,000	\$16,000
Support Staff for Administration (e.g., secretarial)	\$0	\$0	\$0
Fringe Benefits (total for all groups)	\$29,000	\$29,000	\$29,000
Other Personnel Costs	\$0	\$0	\$0
Total Existing Personnel Costs – New Positions	\$142,500	\$142,500	\$142,500
Start-up Costs - One-Time Expenses			
Library/learning resources	\$0	\$0	\$0
Equipment/Technology	\$0	\$0	\$0
Physical Facilities: Construction or Renovation	\$0	\$0	\$0
Other	\$0	\$0	\$0
Total Start-up Costs	\$0	\$0	\$0
Operating Costs – Recurring Expenses			
Supplies/Expenses	\$5,000	\$5,000	\$5,000
Library/learning resources	\$0	\$0	\$0
Equipment/Technology	\$0	\$0	\$0
Travel	\$0	\$0	\$0
Other	\$0	\$0	\$0
Total Operating Costs	\$5,000	\$5,000	\$5,000
GRAND TOTAL COSTS	\$166,300	\$166,300	\$166,300

B. FUNDING SOURCES (projected as appropriate)	Current	First FY (New)	Second FY (New)	Third FY (New)
Tuition / State Funds	N/A	\$186,379	\$325,315	\$345,647
Student / Lab Fees	N/A	\$57,040	\$104,854	\$112,136
Other Sources	N/A	\$0	\$0	\$0
GRAND TOTAL FUNDING	N/A	\$243,419	\$430,169	\$457,783
C. Projected Surplus/Deficit (+/-) (Grand Total Funding <i>minus</i> Grand Total Costs)		\$77,119	\$263,869	\$291,483

X. Expenditures and Funding Sources Explanations

A. Expenditure

Personnel – Reassigned or Existing Positions

The proposed program will leverage the School of Criminal Justice's existing infrastructure to the extent that it would be beneficial. At this time, it is not expected that any teaching faculty currently in the School of Criminal Justice will need to dedicate meaningful time to the MS in Forensic Biology. The new program would be housed in the School of Criminal Justice under the direction of the current chair who would be assigned to a 0.1 FTE at \$14,400 plus \$4,400 fringe benefits.

Personnel – New Positions

WSU must hire new personnel to support the proposed program, including a director and adjunct instructors.

WSU intends to seek FEPAC accreditation for the proposed MS in Forensic Biology. To receive accreditation, WSU must hire a director dedicated to the program. Per FEPAC requirements, the program director shall be a full-time faculty member with a PhD in a degree that emphasizes forensic biology. The director must be qualified by academic experience, research qualifications, and background in program administration to meet the proposed program's stated mission, goals, and objectives. The base salary of a director for this type of program would be approximately \$80,000. Using a fringe percent rate of 30%, the fringe associated with the director would be \$24,000. The projected annual cost of hiring a new director would be approximately \$104,000.

WSU also intends to hire approximately two adjunct instructors per semester to support the proposed program. The adjunct instructors will be on a non-tenure track and have either a PhD or MS in a degree that emphasizes forensic biology. In addition, the adjunct instructors will be practicing or recently retired forensic biologists with intimate knowledge of the work within a forensic laboratory. WSU will use its growing relationship with ATF and other local and state agencies connected to forensic laboratories to identify adjunct instructors. These adjunct instructors will be paid \$4,000 per 3-credit hour course, totaling \$8,000 per semester \$16,000 per year, and no fringe costs will be associated with these individuals.

Collectively, the director and the four adjunct instructors would be responsible for teaching all the courses for the program, which are identified above in the Curriculum.

From an administrative support perspective, WSU intends to hire an individual who can serve as both an administrative assistant and an academic advisor. This individual would be dedicated to the program as a 0.5 FTE. (The remaining 0.5 FTE associated with the individual would support the new MS of Forensic Firearms program that WSU is proposing alongside this program). As an admin/academic advisor, this individual would help advise students on the admission requirements unique to this program while also supporting the program director. Based on a market analysis, the base salary of an admin/academic advisor for this type of program would be approximately \$35,000. Using a fringe percent rate of 30%, the fringe associated with the director would be \$10,500. Because the admin/academic advisor is dedicated to the program as only a 0.5 FTE, the projected annual cost of hiring this individual would be approximately \$22,750.

Start-up Costs – One-Time Expenses

In 2023, the ATF announced plans for a unique new National Forensic Laboratory at WSU. The forensic laboratory is part of a \$75M facility that is being built on WSU's Campus. The forensic laboratory will utilize the latest DNA processing of firearms and ballistic evidence, adding 100 jobs for students and full-time staff. WSU will be able to use some of the space and equipment in the new forensic laboratory, thereby removing the need for WSU to make any one-time expenses associated with start-up costs for the proposed program.

WSU's Midwest Criminal Justice Institute (MCJI) has also received approximately \$3M in grant funding from the Bureau of Justice Assistance to support Crime Gun Intelligence Training and Education. A portion of these grant funds can be used to support building a curriculum related to the proposed project.

As a result, no additional start-up costs are associated with the proposed program.

Operating Costs – Recurring Expenses

As a result of ATF's new forensic laboratory on WSU's Campus and the existing forensic science program at WSU, all equipment, library, and supplies have been accounted for, and no additional costs will be associated with the program. The School of Criminal Justice is allocating \$5,000 each year for marketing efforts.

B. Revenue: Funding Sources

The MS in Forensic Biology program will be funded from two sources: (1) tuition and state funds and (2) student and lab fees.

The tuition and state funds generated are calculated using WSU's graduate tuition rate for in-state residents, \$338.87 per credit hour. In the program's first fiscal year, there will be 25 Year One students taking 22 credit hours each. In the second fiscal year of the program, there will be 30 Year One students taking 22 credit hours each and 25 Year Two students taking 12 credit hours each. In the third fiscal year of the program, there will be 30 Year One students taking 22 credit hours each and 25 Year Two students taking 12 credit hours each. In the third fiscal year of the program, there will be 30 Year One students taking 22 credit hours each.

The student and lab fees are calculated as follows:

- Mandatory Student Fees = 22.33 per credit hour²
- College of Liberal Arts and Sciences Course Fee = \$8.21 per credit hour³
- Lab Fees = $$25 \text{ per course}^4$
- Student Support Services Fee = \$742.35 per semester when a student is taking nine or more credit hours and \$247.45 per semester when a student is taking up to 5.75 credit hours⁵
 - \$742.35 per semester will apply for the first three semesters of the proposed program
 - \$247.45 per semester will apply for the final semester of the proposed program

C. Projected Surplus/Deficit

Given the anticipated costs and revenue, the program is expected to see a small surplus in the first year after implementation but expects to see a larger surplus by the second year and third years. The program should generate significant revenue and be sustainable from tuition funds and standard student and lab fees. Surplus funds

¹ To be most conservative in the funding source calculations, WSU has assumed that all students in the program are in-state residents receiving in-state tuition; however, WSU expects that the program will also draw nonresident students.

² Year One is based on 25 in-state students paying \$22.33 for 22 credit hours (\$12,282). Year Two is based on 30 in-state students paying \$22.33 for 22 credit hours and 25 non-resident students paying \$22.33 for 12 credit hours (\$21,437). Year Three is based on 30 in-state students paying \$22.33 for 22 credit hours and 30 non-resident students paying \$22.33 for 12 credit hours (\$22,777).

³ Year One is expected to generate \$4,516 based on 25 students taking 22 credit hours. Year Two is expected to generate \$7,882 based on 30 students taking 22 credit hours and 25 students taking 12 credit hours. Year Three is expected to generate \$8,374 based on 30 students taking 22 credit hours and another 30 students taking 12 credit hours.

⁴ Year One lab fees are \$3,125 for 25 students taking 5 lab courses. Year Two lab fees are \$6,250 for 30 students taking 5 lab courses and 25 students taking 4 lab courses. Year Three lab fees are \$6,750 for 30 students taking 5 lab courses and 30 students taking 4 lab courses.

⁵ Year One is expected to generate \$37,118 for 25 students taking nine or more credit hours, \$69,286 in Year Two for 55 students taking nine or more credit hours, and \$74,235 in Year Three for 30 students taking nine or more credit hours and additional 30 students taking up to 5.57 credit hours.

generated by the program will help improve the overall student experience at WSU and provide additional support to ensure continued growth for the School of Criminal Justice.

XI. References

- U.S. Bureau of Labor Statistics:(2022, May); Occupational Outlook Handbook. Retrieved from https://www.bls.gov/ooh/media-and-communication/interpreters-and-translators.htm
- Kansas Board of Regents. (2023, Month date). Kansas Public Higher Education & Training Program Search. (https://www.kansasregents.org/academic_affairs/program_search)

One Net - Data Base - O*NET https://www.onetonline.org/link/summary/19-4092.00

FEPAC Accreditation Standards (September 29, 2023). Forensic Science Programs Accreditation Commission. (<u>https://www.aafs.org/sites/default/files/media/documents/2023%200929%20FEPAC%20ACCREDITATIO</u> <u>N%20STANDARDS.pdf</u>)

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 (WSU) has submitted an application for approval and the proposing academic unit has responded to all of the requirements of the program approval process. Further, Fort Hays State University has expressed concerns about the proposed program (Attachment B), and WSU has responded to those concerns (Attachment C.)

April 16, 2025

I. General Information

A. Institution - Wichita State University

B. Program Identification

Degree Level:	Master's
Program Title:	Forensic Firearms
Degree to be offered:	Master of Science
Responsible Department or Unit:	School of Criminal Justice
CIP Code:	43.0408
Modality:	Multiple (Traditional Classroom Instruction, Hybrid, and Online
Proposed Implementation Date	Fall 2025

Total Number of Semester Credit Hours for the Degree: 30

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

The proposed Master of Forensic Firearms degree may require field work associated with the course work, depending upon a student's track within the program. For entry-level trainees, the field work will provide apprenticeships and mentoring to eventually become a certified firearm examiner. Clinical sites may include, but will not be limited to, the following:

- ATF Forensic Crime Intelligence Lab the Wichita State University Campus
- County and State Forensic Labs, including:
 - KBI Forensic Lab in Shawnee County
 - Sedgwick County Regional Forensic Science Center
 - Johnson County Criminalistic Forensic Laboratory
- National Firearms Examiner Academy (NFEA), currently offered in Ammendale, MD

III. Justification

Wichita State University (WSU) and the Fairmount College of Liberal Arts and Sciences request the Kansas Board of Regents approval for a Master of Science in Forensic Firearms degree. The MS degree will be housed within WSU's School of Criminal Justice. Founded in 1934, the Criminal Justice program is the second-oldest program of its type in the United States.

Over the last several years, WSU has placed an emphasis on increasing education and training for law enforcement agencies.⁶ Forensic firearms, which is a discipline of forensic science focused on analyzing evidence from firearms that may have been used in a crime, has been a critical area of emphasis. WSU has received funding from the federal government to develop training and education that focuses on crime gun intelligence and firearms and toolmark identification as an applied forensic science discipline.

This funding has helped the University continue to build relationships with federal, state, and local law enforcement agencies. For example, since late 2019, WSU's campus has housed the Wichita Crime Gun Intelligence Center (CGIC), which enables the Wichita Police Department to collect cartridge casings from crime scenes and test-fired firearms and submit to the National Integrated Ballistic Information Network (NIBIN) through the Integrated Ballistics Identification System (IBIS). In turn, the relationships have provided WSU students applied learning opportunities and future career paths.

In addition, WSU has been working with the Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) for nearly a decade. ATF opened a Crime Gun Intelligence Center of Excellence on WSU's Campus in 2023 (*ATF Press release*. ATF, 2023, May 8). The ATF is currently in the process of building a forensic laboratory on WSU's campus (Communications, 2023, March 17). Several other federal, state, and local law enforcement agencies are also looking at establishing a footprint on WSU's campus – illustrating that these groups recognize the value of establishing a partnership with a forward-thinking university like WSU to address gaps in workforce training and education.

The proposed MS degree will help address a growing need for more professionals in forensic firearms. This need is addressed in more detail below in **Section IV(B)** (**Program Demand**). The proposed program will address the need by offering three tracks, each of which is designed to attract, educate, and train a certain stakeholder group. The three tracks are introduced in this section and explained in further detail below in **Section VII** (Admission and Curriculum).

- *Traditional Track* The *Traditional Track* is aimed at traditional graduate student pursuing an MS degree. Its objective is to increase the number of graduate students with awareness about forensic firearms. The proposed degree will enable a student with an undergraduate degree in criminal justice, forensic science, or related field to immediately pursue an MS degree and gain foundational knowledge about firearms and toolmarks. In turn, the foundational knowledge will provide the graduate student with an on-ramp for entering a forensics laboratory and eventually becoming a firearms examiner.
- Trainee Track The Trainee Track is aimed at entry-level trainees currently working in an established firearms section within Federal, state, and local law enforcement agencies. Trainees will also participate in a nationally recognized training program as part of the MS degree they are pursuing at WSU. Section VII (Admission and Curriculum) provides further details on the nationally recognized training programs.
- *Firearms Examiner Track* The *Firearms Examiner Track* is aimed at individuals that are already recognized as firearms examiners because they fulfill certain educational and experience requirements. The proposed program will provide additional education that complements their professional work. For example, the curriculum includes courses relating to ethics, quality assurance, research and writing, and criminal law that will supplement the existing knowledgebase and skillset for a firearms examiner, increasing overall effectiveness within the profession. **Section VII (Admission and Curriculum)** provides further details on the educational and experience requirements necessary to be recognized as a firearms examiner.

⁶ In addition to the proposed Master of Science in Forensic Firearms, WSU is also submitting for program approval of a Master of Science in Forensic Biology.

IV. Program Demand

A. Surveys

The School of Criminal Justice administered a formal survey of current students at Wichita State University, as detailed below.

- Number of surveys administered: Survey distributed to students enrolled in the School of Criminal Justice.
- Percentage of students interested in program: ... 54 of the 64 students identified the MS in Forensic Firearms as an item of their interest. Of the 54 students, 41 students (74.5%) expressed interest. The strongest interest came from the students majoring in Criminal Justice. 83% (n=15/18) expressed their interest in the new degree program. Surveyed. While over half (n-8/14) of the forensic science students indicated interest. 81% of the remaining students, 26 students, expressed interest in the proposed degree.

In addition, WSU's Midwest Criminal Justice Institute (MCJI) conducted an informal survey to gauge the interest of individuals currently working as trainees and firearms examiners. The Midwest Criminal Justice Institute (MCJI) is located within Wichita State University's Industry and Defense Programs (IDP) division. Headquartered on the Innovation Campus, MCJI serves as a centralized hub for engaging and connecting with law enforcement and safety partners at Federal, state, and local levels.

Working with partners, MCJI contacted more than 200 individuals that have already completed a nationally recognized training program in the field of firearms forensics. More than half of these individuals expressed an interest in pursuing the proposed MS degree at WSU.

B. Market Analysis

Forensic crime labs perform a variety of forensic analyses on physical evidence collected in criminal investigation. Throughout the United States, there are approximately 320 publicly funded forensic crime laboratories and multi-lab systems supporting federal, state, and local criminal justice agencies. In 2020, these laboratories received more than 3 million requests for service (<u>Publicly funded Forensic Crime Laboratories</u>, 2020).

Firearms and toolmarks analysis are a core function performed by crime labs. There has been a significant increase in forensic firearms evidence submissions to crime labs, which resulted in a notable backlog increase of 97% from the year 2014 through the year 2020. The Consortium of Forensic Science Organizations (CFSO) noted in a letter to the President of the United States that the demand for forensic firearms professionals exceeds the trained workforce. "[T]here has been an alarming decrease in the number of trained forensic firearms examiners. As a result, local, county, state, and tribal crime laboratories cannot keep up with the upsurge of new cases and influx of firearms submitted for examination. Backlogs of evidence items to exam have increased dramatically" (Whitehouse, 2022). The CFSO noted in a separate letter that "[t]here is a significant and growing workforce shortage of firearm/toolmark examiners in the United States forensic science community. A critical need for trained firearms/toolmark examiners has developed due to the retirement of current firearms examiners, along with a dramatic and continuing increases in cases submitted to crime laboratories" (Thecfso, 2022).

Although there are other programs in the United States with components relating to forensic firearms, as illustrated in the table below, WSU is a unique place to address the workforce and training issues identified above because of its strong relationship with Federal, state, and local law enforcement agencies.

College	Program Name	Brief Description
Virgina Commonwealth University	<u>Forensic Firearms</u> <u>Identification</u> <u>Training</u>	This cohort-based noncredit certificate program is directed by the VCU Department of Forensic Science. The 18-month program accepts participants through an application process and is delivered through six modules using a combination of teaching/training modalities. It is designed to be an external training resource to firearms sections/units within crime laboratories and aims to provide quality training to entry-level trainees already hired by a crime laboratory unit. The objective of the training is to produce benchready firearm analysts in the area of microscopic comparisons of firearm-related evidence.
Oklahoma State University	M.S. in Forensic Sciences - Arson, Explosives, Firearms and Toolmarks Investigation	The OSU School of Forensic Sciences offers a master's degree in forensic sciences with a specialization in arson and explosives investigation. This non-thesis track offers graduate-level education for law enforcement and military investigators working in the field of explosives and fire investigation.
Syracuse University	<u>Certificate of</u> <u>Advanced Study in</u> <u>Firearm and Tool</u> <u>Mark Examination</u>	This 12-hour certificate is intended both for students who wish to become firearm and toolmark examiners and for newly hired examiners in need of training. A great need exists for training of firearm and toolmark examiners. Even after a candidate is hired into such a position, training of two years or more is typically needed before the new examiner can work independently on casework. This training comes at great expense, particularly to smaller agencies, where efficiencies associated with the simultaneous training of multiple candidates cannot be achieved. This CAS, while not intended to fulfill all the required training, can provide a useful start and/or supplement.

V. Projected Enrollment

The Initial Three Years of the Program of Wichita State University will see the projected enrollment in the first year is 24 students these will be in the cohort of students who have

Year	Headcount Per Year		Sem Credit Hours Per Year	
	Full- Time	Part- Time	Full- Time	Part- Time
Implementation	24	0	432	0
Year 2	50	0	930	0
Year 3	60	0	1020	0

Student Enrollment Explanation

- 1. Implementation Year (N=24):
 - Admitted Students: 24-student Examiner's Track, this group will have the NFTE training.

- 2. Year 2 (N=50):
 - 24 New Students will be admitted into the Examiner's Track
 - 10 Traditional Students will be admitted to the 30 hour full degree program, and
 - 16 students in the Trainee Track will be admitted
- 3. Annual Admission Numbers (N=60):
 - 24 Examiner's Track students will be admitted
 - 10 Traditional Students will be admitted to the 30-hour full degree program
 - 10 Traditional Students will continue into their second year
 - 16 students in the Trainee Track will be admitted

VI. Employment

Forensic firearms is a discipline of the broader forensic science category. The Bureau of Labor Statistics (BLS) projects 14% employment growth for forensic science technicians between 2023 and 2033, which is much faster than average and corresponds to approximately 2,500 annual job openings (U.S. Bureau of Labor Statistics, 2024, August 29). Nationally, the number of jobs for forensic science technicians in 2023 was 18,600. The median yearly pay for forensic science technicians was \$64,940 in 2023, with the highest 10% earning around \$107,490 (U.S. Bureau of Labor Statistics, 2024a, April 3).

VII. Admission and Curriculum

A. Admission Criteria

In developing the admission criteria for the Master of Forensic Firearms degree program, Wichita State relied upon input from three primary sources: (1) faculty members and instructors; (2) industry partners; and (3) the document entitled the *Minimum Education Requirements for Firearm and Toolmark Examiner Trainees*. The guidelines in the foregoing document were developed by the Firearms & Toolmarks Subcommittee of the Organization of Scientific Area Committees (OSAC) for Forensic Science (NIST, 2020, March). The National Institute of Standards and Technology (NIST) established OSAC for Forensic Science in 2014.

General Admission Requirements

An applicant pursuing the proposed MS degree must meet the following general admission requirements:

- A bachelor's degree in forensic science, a natural science field of study, or criminal justice from a regionally accredited institution or a foreign university with substantially equivalent bachelor's degree requirements. If the bachelor's degree is in criminal justice, WSU reserves the right to evaluate individual coursework or other experience to ensure that the applicant has sufficient scientific background to be able to successfully complete the proposed MS degree.
- A 3.000 GPA or higher in the applicant's undergraduate work.
- Three letters of recommendation, preferably from professors and/or supervisors familiar with the applicant's academic/technical ability, work ethic, and skills.
- Statement of purpose describing the applicant's career goals and how the MS degree will help support those goals.
- Resume/CV/providing a description of experience or qualifications in support of the applicant's admission.

In addition to the general admission requirements, an applicant must also meet any additional track-specific requirements identified below.

Admission Criteria Specific to the Traditional Track

An applicant pursuing the *Traditional Track* of the proposed MS degree will be required to complete all 30 credit hours of coursework at WSU. Specific details relating to the curriculum for Traditional *Track* are provided in further detail below in **Section VII(B)** (Curriculum).

Admission Criteria Specific to the Trainee Track

An applicant pursuing the *Trainee Track* of the proposed MS degree will be required to complete 18 credit hours of coursework at WSU and to participate in a nationally recognized training program in the field of firearms forensics for an additional 12 Credit for Prior Learning (CPL) credit hours, for a grand total of 30 credit hours. To qualify for the *Trainee Track*, the applicant must be employed full-time in an established firearms section within a federal, state, or local law enforcement agency and be working underneath the guidance of an experienced firearm and toolmark examiner. Specific details relating to the curriculum for the Trainee Track are provided in further detail below in **Section VII(B) (Curriculum)**.

Admission Criteria Specific to the Firearms Examiner Track

An applicant pursuing the *Firearms Examiner Track* of the proposed MS degree will be required to complete 18 credit hours of coursework at WSU and to have previously completed a nationally recognized training program in the field of firearms forensics for an additional 12 Credit for Prior Learning (CPL) credit hours, for a grand total of 30 credit hours. To qualify for the *Firearms Examiner Track*, the applicant must have completed the nationally recognized training program and subsequently worked at least 3 months in an established firearms section within a federal, state, or local law enforcement agency. Specific details relating to the curriculum for the Trainee Track are provided in further detail below in **Section VII(B) (Curriculum)**.

B. Curriculum

Curricula for the various tracks within the proposed MS degree are listed below. As detailed below, the *Trainee Track* and the *Firearms Examiner Track* for the proposed MS degree enable an applicant to receive 12 Credit for Prior Learning (CPL) credit hours for completion of a nationally recognized training program in the field of forensic firearms. Providing a pathway for an applicant to receive credit for knowledge and expertise acquired through a nationally recognized training program is consistent with KBOR's practice of enabling "postsecondary institutions to award academic credit for a student's knowledge and expertise acquired through life and professional experience" (Credit for prior learning, Home (n.d.).

The nationally recognized training program in the field of forensic firearms must meet certain guidelines to qualify as Credit for Prior Learning for the 12 credit hours. WSU will put together a committee to determine whether a program should receive the designation of being a nationally recognized training program in the field of forensic firearms. The committee will meet on at least a biennial basis and will include the input of faculty members and instructors, industry partners, and federal, state, and local agency laboratories. At each meeting, the committee should perform the following tasks: (1) verify that a training program previously designated as a nationally recognized training program should continue to receive that designation; and (2) identify any additional training programs that should receive the designation.

During implementation of the proposed MS degree, only the National Firearms Examiner Academy (NFEA) will receive the designation as a nationally recognized training program in the field of forensic firearms. To date, more than 200 individuals have successfully completed the NFEA program. The NFEA was opened in 1999 as a collaboration between ATF's National Laboratory Center, the Association of Firearm and Tool Mark Examiners (AFTE), and a private consultant. The NFEA is currently the only national training program to provide a standardized training curriculum for education in firearms forensics (*National Firearms Examiner Academy*. ATF, n.d.).

In making the determination to designate the NFEA as a nationally recognized training program in the field of forensic firearms, WSU evaluated the program's curriculum and other hands-on training. In general, the NFEA is divided into four phases, which are briefly outlined below:

- **PHASE I** A four-month period to complete reading and researching pre-course assignments as provided by the academy staff.
- **PHASE II** A 17-week instructional session that is very content-intensive and includes in-depth instruction and practical exercises related to firearms and toolmarks examinations.
- **PHASE III** A four-month period doing work within a firearms section of a federal, state, or local agency laboratory. The phase includes a research project and simulated firearms and toolmark cases.
- PHASE IV A two-week session including a mock trial and presentation of completed research project.

Consistent with KBOR's most recent guidance on CPL (Kansas Credit for Prior Learning Guidelines: A Best Practices Guide for Assessing Prior Learning at Public Postsecondary Institutions, updated on November 2024), Attachment A provides a course-by-course analysis establishing that learning from the NFEA is equivalent to the learning outcomes in the postsecondary course for which CPL is being awarded.

Traditional Track

Year 1: Fall	SCH = Semester Cred	lit Hours
Course #	Course Name	SCH
FS 740	Introduction to Firearms and Toolmark Examinations	3
FS 742	History of Firearm Examination	3
FS 744	Modern Firearm: Manufacture and Operating Systems	3
FS 746	Advanced Analysis of Firearms and Toolmarks Examination	3

Total 12

Year 1: Spring

	8	
Course #	Course Name	SCH
FS 747	Advanced Analysis of Firearms and Toolmarks II	3
FS 748	Court Testimony for Firearm and Tool Mark Examiners / Research	3
FS703	Ethics Professional Responsibility and Quality Assurance in FS	3
		0

Total 9

Year 2: Fall Courses		
Course #	Course Name	SCH
FS 704	Forensic Science Research Methods	3
FS 706	Criminal Law for Forensic Scientists	3
FS 749	Forensic Validation and Laboratory Techniques	3
	Tot	al 9

Total Number of Semester Credit Hours 30

<u>Trainee Track</u>

Curriculum for the *Trainee Track* consists of two components: (1) coursework at WSU ("Coursework Component"); and (2) participation in a nationally recognized training program for CPL credit hours ("Training Program Component"). Although the Coursework Component is presented below as occurring before the Training Program Component in this document, a specific order is not necessarily required. The order in which a student completes the two components will depend upon scheduling of courses and the ability to participate in a nationally recognized training program.

Coursework Component

Year 1: Spi	ring SCH = Semester Cred	lit Hours
Course #	Course Name	SCH
FS 747	Advanced Analysis of Firearms and Toolmarks II	3
FS 748	Court Testimony for Firearm and Tool Mark Examiners / Research	3
FS 703	Ethics Professional Responsibility and Quality Assurance in FS	3
Graduate Electives for the students in the Trainee Track to substitute for FS 747 and FS		
748 these will	be determined by the student and the graduate coordinator of the program	6
to match stude	ent need and desired focus within the field of forensic firearms.	

Total 9

Year 2: Fa	all	
Course #	Course Name	SCH
FS 704	Forensic Science Research Methods	3
FS 706	Criminal Law for Forensic Scientists	3
FS 749	Forensic Validation and Laboratory Techniques	3
	Total	9

Total Number of Semester Credit Hours 18

Training Program Component

Within the *Trainee Track*, an applicant will also participate in a nationally recognized training program in the field of forensic firearms. Upon completion of the training program, the applicant will receive 12 Credit for Prior Learning (CPL) credit hours. An individual within the *Trainee Track* cannot complete the proposed MS degree until after completion of the training program and WSU awarding the CPL hours.

Students in the Trainee Track will enroll in ALLA 781 (zero credit applied learning course), during the completion of the NFEA training program. Once the student has completed the NFEA training the student will submit proof of the completion of the NFEA, to receive the CPL credit hours will be awarded for the following courses:

Course #	Course Name		SCH
FS 740	Introduction to Firearms and Toolmark Examinations		3
FS 742	History of Firearm Examination		3
FS 744	Modern Firearm: Manufacture and Operating Systems		3
FS 746	Advanced Analysis of Firearms and Toolmarks Examination		3
		Total	12

A course-by-course analysis establishing that learning from the nationally recognized training program is equivalent to the learning outcomes in the postsecondary course is provided in **Appendix A**.

Firearms Examiner Track

Curriculum for the *Firearms Examiner Track* consists of 18 hours of coursework at WSU and 12 CPL credit hours awarded for previous participation in a nationally recognized training program.

Year 1: Spi	ring SCH = Semester Cred	lit Hours
Course #	Course Name	SCH
FS 747	Advanced Analysis of Firearms and Toolmarks II	3
FS 748	Court Testimony for Firearm and Tool Mark Examiners / Research	3
FS 703	Ethics Professional Responsibility and Quality Assurance in FS	3

Graduate Electives for the students in the Trainee Track to substitute for FS 747 and FS	
748 these will be determined by the student and the graduate coordinator of the program	6
to match student need and desired focus within the field of forensic firearms.	

Total 9

I cal 2. Fa	11	
Course #	Course Name	SCH
FS 704	Forensic Science Research Methods	3
FS 706	Criminal Law for Forensic Scientists	3
FS 749	Forensic Validation and Laboratory Techniques	3
	Total	9

Total Number of Semester Credit Hours18CPL credit hours will be awarded for the following courses:

Course #	Course Name	SCH
FS 740	Introduction to Firearms and Toolmark Examinations	3
FS 742	History of Firearm Examination	3
FS 744	Modern Firearm: Manufacture and Operating Systems	3
FS 746	Advanced Analysis of Firearms and Toolmarks Examination	3

Total 12

A course-by-course analysis establishing that learning from the nationally recognized training program is equivalent to the learning outcomes in the postsecondary course is provided in **Appendix A**.

VIII. Core Faculty:

Voor 2. Fall

The proposed Forensic Firearms degree will need a coordinator for the program and adjuncts who are currently working for the Department of Alcohol, Tabaco, Firearms and Explosives to provide instruction in the proposed program. The core faculty for the Master of Forensic Firearms will continue to build the program's curriculum, policies, procedures and documentation for accreditation.

Parts of the program will be taught online. However, because of the applied learning characteristics of the proposed program there will be lab requirements for several courses. The teaching methods will be a combination of traditional classroom instruction with other classes using hybrid teaching options. Several instructors will be experts from the ATF as well as research advisors, this will support the applied learning needed in this proposed program. This will also support the curriculum / teaching needs and the program. The School of Criminal Justice currently has nine faculty members, and their expertise would support the new degree program.

Faculty Name	Rank	Highest Degree	Tenure Track Y/N	Academic Area of Specialization	FTE to Proposed Program	FTE Salary
New Hire Year 2 of the program	Professor / Coordinator	Ph.D. Criminal Justice	Y	Natural Sciences Firearm Examiner	1.0	Salary: \$75,000 Fringe: \$22,500

Use of Adjuncts from ATF as specialist in the field	Affiliated ATF	PhD or MS forensic biology Adjunct	N	Forensic Sciences / Biology / Chemistry / or Natural Sciences	Per 3 credit class Adjunct Pay	4 classes per year x \$4,000 per class \$16,000 per year
New Hire Admin Support	Staff		N	Shared position with the Master of Forensic Biology	.5	Salary \$17,500 Fringe: \$5,000
Andrea Bannister	Professor and Chairperson	PhD in Criminal Justice	Y		0.1	Salary: \$14,400 Fringe: \$4,400

IX. Expenditure and Funding Sources

A. Expenditures	First FY	Second FY	Third FY
Personnel – Reassigned or Existing Positions			
Adjunct Faculty ATF – FB Trainers	\$16,000	\$16,000	\$16,000
Existing Faculty reassigned $x1 \cdot 1 = .1$	\$14,400	\$14,400	\$14,400
Fringe Benefits (total for existing faculty)	\$4,400	\$4,400	\$4,400
Total Existing Personnel Costs – Reassigned or		34,800	34,800
Existing	\$34,800		
Personnel – New Positions			
Faculty (Program Coordinator of (FF)	\$75,000	\$75,000	\$75,000
NTT Educators			
Graduate Assistants			
Support Staff for Administration (Graduate Staff			
Assistant)	¢22.500	¢22.500	¢22.500
Fringe Benefits (total for all groups)	\$22,500	\$22,500	\$22,500
<i>Iotal Existing Personnel Costs – New Positions</i>	¢07.500	¢07.500	¢07.500
	\$97,300	\$97,300	\$97,300
Barsonnal New Desition Administrative			
Support			
Administrators Advising Dual Advisor	\$17 500	\$17 500	\$17 500
Fringe Benefits	\$5,000	\$5,000	\$5,000
Other Personnel Costs	\$0,000	\$0	\$3,000
Total Personnel Costs_New Positions	\$22.500	\$22 500	\$22 500
	\$22,500	\$22,500	\$22,500
Operating Costs – Recurring Expenses			
Supplies/Expense (Cards Letter Head	\$5,000	\$5,000	\$5,000
Advertisement and Swag)			
Library/Learning Resources			
Equipment/Technology			
Other			
Total Operating Costs	\$5,000	\$5,000	\$5,000

Grand Total Costs	\$159,800	\$159,800	\$159,800
B. FUNDING SOURCES	1 st FY	2 nd FY	3 rd FY
	24 inaugural	24 new students	24 new students
	students	NFEA+16 training	NFEA+16 training
	NFEA	and 10 regular 30	and 10 continuing
		hour students	and 10 new
			regular track
			students
Graduate Tuition/State Funds (\$338.87)	\$146,392	\$315,149	\$345,647
Mandatory Student Fees \$22.33 credit hr	\$9,647	\$20,767	\$22,777
LAS Student Fee \$8.21 credit hr	\$3,547	\$7,635	\$8,374
Student Support Fees	\$35,633	\$74,235	\$81,659
Grand Total Funding	\$195,219	\$417,786	\$458,457
C. Projected Surplus/Deficit (+/-)	\$35,419	\$257,986	\$298,657

X. Expenditures and Funding Sources Explanations

A. Expenditures

Personnel - Reassigned, Existing, & New Positions

Current instructors will be from the School of Criminal Justice, as well as new hires and ATF trainers will instruct courses in the proposed MS in Forensic Firearms program. The additional cost will be one new tenure track faculty member who will serve as the program director, one Non-Tenure Track faculty instructor, four ATF adjuncts per year are projected, along with a required (FEPAC accreditation standards) administrative assistant for the program.

The director and NTT faculty members will have the primary responsibilities of for teaching, advising, administering the scheduling of courses, and recruitment and retention of students.

Mentoring of the Capstone Research projects will fall upon both the program faculty along with the applied learning opportunities offered through the ATF labs and the center for excellence.

B. Revenue: Funding Sources

The MS in Forensic Firearms program will be funded from two sources: (1) tuition and state funds; and (2) and student and lab fees.

The tuition and state funds generated are calculated using WSU's graduate tuition rate for in-state residents, \$338.87 per credit hour. In the first fiscal year of the program, there will be 24 Examiner's Track students taking a total of 18 credit hours. In the second fiscal year of the program, there will be 24 Examiner's Track students taking a total of 18 credit hours, 10 Year One Traditional Track students taking a total of 21 credit hours and 16 students in the Training Track taking 18 hours (930 hours). In the third fiscal year of the program, there will be 24 Examiner's Track students taking 21 credit hours, 10 Year One Traditional Track students taking 21 credit hours, 10 Year Two Traditional Track students taking 9 credit hours, and 16 students in the Training Track taking 18 hours (1,020 hours).

The student and lab fees are calculated as follows:

- Mandatory Student Fees = \$22.33 per credit hour
- College of Liberal Arts and Sciences Course Fee = \$8.21 per credit hour
- Student Support Services Fee = \$742.35 per semester when a student is taking 9 or more credit hours.

C. Projected Surplus/Deficit

Given the anticipated costs and revenue, the program is expected to have a small surplus for the first year after implementation but expects to see a larger surplus by the second and third years. Surplus funds generated by the program will be utilized to help improve the overall student experience at WSU and provide additional support to ensure continued growth for the School of Criminal Justice.

XI. References

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	WSU Course	Brief Course Description	Cr.	Learning Objectives	NFEA
	Title		Hrs.		Modules
FS703	Ethics, Professional Responsibility, & Quality Assurance in Forensic Science	Course will cover professional responsibility and quality assurance considerations in forensic science work. Topics include professional conduct subject to ethics, the importance of using valid scientific work, bias, and the efforts to maintain high standards of quality assurance through laboratory accreditation. Emphasis is placed on the professional demands of handling evidence, as well as the history of various domestic and international forensic DNA testing standards.	3		n/a
FS704	Forensic Science Research Methods	Course is designed to use applications of basic laboratory methods for the research of forensic science topics, with an emphasis on scientific writing, experimental design, data collection, evaluation and analysis, communication skills, and critical thinking and publication review. The course will also incorporate teachings relating to forensic validation and statistical applications in biology.	3		n/a
FS706	Criminal Law for Forensic Scientist	This course discusses aspects of criminal law relevant for forensic scientists. It reviews major US Supreme Court rulings related to forensic science, including Brady, Daubert, and Fry. The course also includes a discussion of when and how lab tests can be used in a case, courtroom demeanor, and	3		n/a

A Course-by-Course Analysis of the Forensic Firearms Courses and the NFEA Training Modules

		testimony techniques and pitfalls. Special emphasis is given to the laws affecting evidence, courtroom procedure, ethics, and professional responsibilities of the forensic expert. Students will receive an applied learning opportunity through a moot court exercise.			
FS740	Introduction Into Firearms Identification	Provides a comprehensive overview of firearms examination, focusing on both theoretical knowledge & practical skillscurriculum is composed of the fundamentals of forensic firearms & toolmark examinations and serves as the basis for the student trainee, under supervision, to develop into a qualified firearms examiner.	3	 Laboratory and Firearms Safety Guidelines Interpret the scope of work and responsibilities of firearms examiners. Identify and differentiate between class, subclass, and individual characteristics on fired ammunition components. Demonstrating use of microscopic comparisons of fired bullets and classify the results. Use common terminology related to toolmark identification effectively. Understand and apply toolmark examination protocols. Operate and utilize equipment used in toolmark examination. Apply techniques for restoring obliterated markings on firearms and ammunition. 	G (partial)
FS742	History of Firearm Examination	An in-depth exploration of the principles and practices essential to forensic firearms identification. Students will gain a comprehensive understanding of the processes involved in the manufacture of modern firearms—from firearms factory tours and including the application of serial numbers. The course covers the historical development, fundamental principles, and current advancements in firearms identification.	3	 Identify the key figures and evolutionary phases in the history of firearms identification Describe the development of muzzle-loading firearms and the history of black powder. Describe the origins and purposes of rifling. Analyze the advancements in firearms identification and examination equipment. Utilize the correct terminology within the firearm and toolmarks forensic discipline. Contextualize the development of firearms identification within the broader history of forensic science and criminal investigation. 	B C

FS744	Modern Firearm: Manufacture & Operating Systems	Provides an in-depth exploration of the manufacture, mechanisms, assembly, and operation of modern firearms. Students will gain comprehensive knowledge of various firearm types, components, mechanisms, and the principles behind their operation. The course is designed to equip students with the technical expertise necessary for forensic analysis and firearms examination.	3	 Identify and describe the key components, mechanisms, operations of firearm types to include: Revolvers—single and double action, Derringers and single-shot handguns, Single and double action pistols, Simple and delayed blowback guns, Shotguns—single shot, pump, and recoil operated, Rifles—pump, lever, and bolt action, Semi-automatic gas-operated rifles. Analyze the manufacturing processes involved in the production of modern firearms. Demonstrate proficiency in the assembly and disassembly of various firearms. Evaluate the operational principles of firing mechanisms, safety features, and ballistic performance. Apply forensic techniques to examine and interpret firearm- related evidence. Conduct detailed examinations of firearm malfunctions and their causes. Develop skills in the documentation and reporting of forensic findings
FS746	Analysis of Firearms and Toolmarks Examination	This course delves into the forensic analysis of firearms and toolmarks, providing students with the skills and knowledge necessary to perform detailed examinations and comparisons. The course covers the examination of fired bullets, microscopic comparisons, fired shotshell projectiles, general rifling characteristics, toolmark examinations, and distinguishing between class and subclass.	3	 Perform detailed examinations of fired bullets and shotshell projectiles. Conduct microscopic comparisons to identify and differentiate toolmarks. Understand and apply general rifling characteristics in forensic analysis. Distinguish between class, subclass, and individual marks in toolmark examinations. Apply best known non-match (KNM) concepts in forensic investigations. Utilize common terminologies accurately and understand the range of conclusions in forensic examinations.

FS747	Advanced Analysis of Firearms and Toolmarks Examination II	This advanced course delves into the forensic analysis of firearms and toolmarks, providing students with the skills and knowledge necessary to perform detailed examinations and comparisons. The course covers the examination of fired bullets, microscopic comparisons to include 3d topography and virtual comparison microscopy (VCM), individual marks, and best known non-match (KNM) concepts, and common range of conclusions.	3	 This course is a continuation of FS 746 and builds upon the skills and outcomes of that course. By the end of this course, students will be able to further: Perform detailed examinations and microscopic comparisons of firearms and tool marked materials. Explain the theoretical foundations and principles of KNM and VCM. Apply and demonstrate proficiency of VCM techniques in forensic analysis through use of VCM software as compared to microscopic examination. Evaluate the reliability and validity of KNM and VCM methods assessing the strengths and limitations of KNM and VCM examinations. Conduct independent research using KNM and VCM that incorporates KNM and VCM methodologies. Integrate KNM and VCM into broader forensic science practices Stay updated with advancements in KNM and VCM methods and concepts through review of recent literature and emerging trends within both fields. 	K L M (partial)
FS748	Court Testimony for Firearm & Tool Mark Examiners / Research Project	This course provides an in- depth examination of the role of forensic experts in the courtroom, specifically focusing on firearm and toolmark examination. Students will explore the legal and scientific principles underpinning the admissibility of forensic evidence, with a particular emphasis on the Daubert decision and other relevant legal precedents. The course will also cover strategies used by opposing counsel to challenge the credibility and reliability of expert testimony.	3	 Understand the Daubert Standard: Analyze the implications of the Daubert decision on the admissibility of forensic evidence in court. Legal Precedents: Identify and discuss key legal precedents that impact the acceptance of firearms and toolmark testimony. Expert Testimony: Develop skills to effectively present and defend forensic findings in a courtroom setting. Cross-Examination Tactics: Recognize and counteract common tactics used to discredit expert witnesses. 	R (partial)

		Additionally, students will research and produce a technical research paper or project.		 Ethical Considerations: Evaluate the ethical responsibilities of forensic experts in providing testimony. Produce an article (paper) suitable for technical publication such as the AFTE Journal or similar scientific journal along with 30-to-45-minute oral presentation on the research topic which addresses unanswered or previously unaddressed questions within the field of firearm and toolmark examination.
FS749	Forensic Validation & Laboratory Techniques	Exploration of laboratory skills, and the validations used within the forensic science laboratory emphasizing the critical skills and standards necessary for professional practice. Aligned with the Organization of Scientific Area Committees (OSAC), this course covers essential topics such as documentation, laboratory skills, communication skills, examiner proficiency testing, validation processes, quality assurance, analytical procedures, reporting, peer reviews, and analytical standards.	3	 Attention to Detail: Demonstrate meticulous observation, documentation, and measurement skills essential for forensic analysis. Laboratory Skills: Exhibit proficiency in using various laboratory instruments and techniques, ensuring accurate and reliable results. Interpersonal Communication Skills: Effectively communicate findings and collaborate with law enforcement, legal professionals, and other scientists. Proficiency Testing: Understand and apply proficiency testing to ensure the accuracy and reliability of forensic analyses. Validation Processes: Developmental Validation: Conduct and evaluate developmental validation studies to establish the efficacy of new forensic methods. Internal Validation: Perform internal validation to confirm that established methods work reliably within a specific laboratory setting. Quality Assurance Training: Implement and adhere to quality assurance protocols to maintain high standards in forensic laboratory operations. ISO accreditation and implementation. Analytical Procedures: Apply standard analytical procedures and techniques to analyze forensic evidence accurately. Reports and Reviews: Prepare clear, concise, and comprehensive forensive forensive forensive forensic reports and conduct peer

	 reviews to ensure the integrity of findings. Analytical Standards: Adhere to established analytical standards and guidelines to ensure consistency and reliability in forensic analyses.
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Note: Per WSU College of Liberal Arts & Science's policy, students pay for CPL on a course-by-course basis by first contacting the program director.

Attachment B



FORT HAYS STATE UNIVERSITY CRIMINAL JUSTICE PROGRAM

Provost Jill Arensdorf

Fort Hays State University 600 Park Street Hays, KS 67601

Subject: Response to Proposed Master of Forensic Science Program & Request for Clarification

Dear Provost Arensdorf,

We are writing to express preliminary support for the proposed Master of Forensic Biology program at Wichita State University (WSU). The development of such a program is an exciting advancement in forensic education and has the potential to provide valuable opportunities for students pursuing careers in forensic science and related fields. Specifically, it may have potential as a program that Fort Hays State University (FHSU) refers students completing the Bachelor of Science in Criminalistics.

While we support the program's objectives, we would like to request clarification on several aspects of its structure and admission requirements. Specifically, we are interested in understanding why the program is housed within the School of Criminal Justice rather than in a department more directly aligned with the natural sciences. We notice only one criminal justice course (FS706 Criminal Law for Forensic Science), which seems to miss the interdisciplinary nature of forensic science. For this reason, we would appreciate any insights into how this administrative decision supports the program's academic and professional goals.

Additionally, we seek further information regarding the inclusion of **Biology I, Biology II, and Biology III** within the curriculum. Specifically, we request an explanation of the content and objectives of these courses. Moreover, have these courses already been developed, or are they still in the planning stages? If they are still in development, we would be interested in learning more about the intended direction and scope of the coursework.

Finally, we would like to inquire about the competitiveness of students completing the proposed degree. Could WSU provide details regarding the academic background and prerequisites expected of applicants and readiness for advanced careers of graduates? Students completing the Bachelor of Science in Criminalistics at FHSU will have completed a true interdisciplinary core curriculum including hours in Criminal Justice (27) and chemistry (23), with additional hours in their choice concentration in Chemistry (26), Biology (27), or Crime Mapping & Spatial Analysis (30), each including additional criminal justice course work. These students will earn a

degree equally strong in criminal justice, chemistry, and chosen concentration. Will the proposed Master of Forensic Biology program graduate students prepared not only for advanced careers in forensics but also for doctoral level education in criminalistics?

We appreciate your time and consideration in addressing these questions and look forward to a response and further collaboration from WSU as we look to support the development of the Master of Forensic Biology program.

Sincerely,

Tamara J Lynn, PhD Criminal Justice Programs Chair Fort Hays State University tjlynn@fhsu.edu

Arvin Cruz, PhD Chemistry Department Chair Fort Hays State University ajcruz2@fhsu.edu

Tara Phelps-Durr, PhD Biology Department Chair Fort Hays State University <u>tlphelpsdurr@fhsu.edu</u>

ACADEMIC AFFAIRS



February 28, 2025

Dr. Jill Arensdorf Provost and Vice President of Academic Affairs Fort Hays State University

Dear Jill,

We are delighted to learn of the preliminary support for our proposed new Forensic Masters programs from members of your faculty. We believe these programs have great potential for the forensic science community specifically, and the criminal justice system generally. Please allow me to attempt to address several areas of possible concern which have been noted by your faculty, Drs. Lynn, Cruz, and Phelps-Durr.

The School of Criminal Justice at Wichita State is over 90 years old and is the second oldest such program in the country. The proposed new master's programs are an outgrowth of our undergraduate Bachelor of Science in Forensic Science. While some might question the housing of a "hard science" degree within a more "social science" department, we have found it has fostered close and continuing collaboration between our departments of anthropology, biology, chemistry, and others during the 20 plus years the degree has been offered. The forensic program and those who have graduated from it have long understood the interdisciplinary relationship to the criminal justice field and the community as a whole. Comparison of the undergraduate Forensic Science program at Wichita State and the Criminalistics program at Fort Hays will find they are very similar in their core courses and credit hours requirements.

The courses for the proposed programs have been drafted with the goal of preparing students to lead the examination process within their respective disciplines. To directly answer the inquiry concerning the Forensic Science Biology courses, the following is a brief synopsis of each course description:

FS710: Forensic Biology I--(accompanying lab) (4 credit hours): This course focuses on molecular biology and its various lab tests. The lab section of this course affords an opportunity for students to perform some lab tests associated with forensic biology.

FS711: Forensic Biology II--(accompanying lab) (3 credit hours): This course reviews emerging forensic molecular technologies as well as molecular applications for nontraditional forensic needs. Emphasis will be given to current research and technologies most likely to be implemented in forensic laboratories. Molecular applications may include those that involve analysis of DNA, RNA, protein, or other cell macromolecules and use of advanced molecular tools for separation, detection, manipulation, identification, imaging, and analysis.

FS712: Forensic Biology III--(accompanying lab) (3 credit hours): This course focuses on molecular genetics. It uses examples from literature to support fundamental knowledge and present the dynamics in the field of moder genetics. Students study the nature of genetic materials, mechanisms in gene expression and regulation, and advanced technology applied in genetic engineering and genome editing. Students are required to present a class seminar based on

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February 28, 2025 Page 2 of 2

technical literature on a topic chosen in consultation with the instructor. The emphasis is on applications in forensics.

While the syllabi with detailed learning outcomes, accompanying assessments, and lab activities for both programs have been prepared and received the approval of the academic affairs committees and our graduate school, it is assumed and understood that instructors for individual courses will likely revise the scope of some coursework. Students seeking admission to these programs must show evidence of sufficient scientific background to complete the graduate-level coursework successfully. Those lacking adequate background will need to complete their individually needed foundational work.

Based upon the brief review of the FHSU Criminalistics web page, students from FHSU with concentrations in biology or chemistry, and possibly more, with an interest in Firearms and Toolmarks, would be strong candidates for the Wichita State Forensic Master's programs.

As you are most likely aware, Wichita State has and continues to develop a close relationship with the Bureau of Alcohol, Tobacco, Firearms, and Explosives (ATF) which includes the current construction of a new Forensic Crime Gun Intelligence Laboratory on our campus. While this forensic lab will be national in scope, AFT has indicated a desire to locally develop their own scientists through collaborations, joint research, and internships with the University.

We thank you for your interest, questions, and support, and look forward to exploring a mutually beneficial collaboration.

Sincerely,

Monica Lounsbery

Dr. Monica Lounsbery Senior Executive Vice President and Provost Wichita State University



Pittsburg State University OFFICE OF ACADEMIC AFFAIRS

March 25, 2025

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

Dear Dr. Monhollon:

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

• Bachelor of Arts in English (CIP 23.0101)

The purpose of this change is to remove nine hours of Foreign Language credit from the major. This change will allow each emphasis to add more required courses or electives in English. I support our faculty's request for the name change to:

• Bachelor of Science in English (CIP 23.0101)

This change has been fully legislated and approved at PSU. Please let me know if you have questions or need additional information

Sincerely,

Susan C. Bor

Susan C. Bon, J.D., Ph.D. Provost and Executive Vice President for Academic Affairs