

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

**MEETING AGENDA  
Tuesday, December 1, 2020  
11:00 am**

The Board Academic Affairs Standing Committee (BAASC) will meet by video conference. Meeting information will be sent to participants via email, or you may contact [arobinson@ksbor.org](mailto:arobinson@ksbor.org).

- |  |                            |       |
|--|----------------------------|-------|
| <b>I. Call to Order</b>  | Regent Kiblinger           |       |
| A. Roll Call   |                            |       |
| B. Approve minutes from November 18, 2020 video conference                   |                            | p. 3  |
| <br>   |                            |       |
| <b>II. Consent Items</b>   |                            |       |
| A. BA in Applied Linguistics – WSU   | Shirley Lefever            | p. 7  |
| B. MS in Data Science in Engineering – WSU                                   | Shirley Lefever            | p. 20 |
| C. MS in Business Analytics – WSU  | Shirley Lefever            | p. 30 |
| D. MS in Mathematical Foundations of Data Analysis – WSU                     | Shirley Lefever            | p. 41 |
| <br>   |                            |       |
| <b>III. Other Matters</b>  |                            |       |
| A. Approve AY 2019 Performance Reports                                       | Sam Christy-<br>Dangermond | p. 48 |
| B. Approve New Courses for Systemwide Transfer                               | Karla Wiscombe             | p. 81 |
| C. Discussion on Metrics for Low Enrollment Program Reviews                  | Daniel Archer              |       |
| D. Direct Support Professionals (DSP) Update                                 | Regent Schmidt             |       |
| E. Coordinating Council Update   | Regent Kiblinger           |       |
| F. Coordinating Council Work Group Updates                                   | Tara Lebar                 |       |
| <br>   |                            |       |
| <b>IV. Suggested Agenda Items for December 16<sup>th</sup> BAASC Meeting</b> |                            |       |
| A. Low Enrollment Program Reviews for KU & FHSU                              |                            |       |
| B. General Education (GE) Working Group Update                               |                            |       |
| <br>   |                            |       |
| <b>V. Adjournment</b>  |                            |       |

### Board Academic Affairs Standing Committee

Four Regents serve on the Board Academic Affairs Standing Committee (BAASC), established in 2002. The Regents are appointed annually by the Chair and approved by the Board. BAASC meets by conference call approximately two weeks prior to each Board meeting to finalize items for the Board agenda. The Committee also meets in person the morning of the first day of the monthly Board meeting. Membership includes:

Shelly Kiblinger, Chair

Ann Brandau-Murguia

Helen Van Etten

Allen Schmidt

### Board Academic Affairs Standing Committee

#### AY 2021 Meeting Schedule

Meeting Dates	Time	Location	Institution Materials Due
August 25, 2020	11:00 am	Conference Call	July 30, 2020
September 9, 2020	1:30 pm	Topeka	August 19, 2020
October 14, 2020	TBD	KU *CANCELED	September 25, 2020
November 3, 2020	11:00 am	Conference Call	October 15, 2020
November 18, 2020	10:30 am	Conference Call *originally at 10:15am	October 28, 2020
December 1, 2020	11:00 am	Conference Call	November 12, 2020
December 16, 2020	10:15 am	Topeka	November 24, 2020
January 5, 2021	11:00 am	Conference Call	December 17, 2020
January 20, 2021	10:15 am	Topeka	December 30, 2020
February 2, 2021	11:00 am	Conference Call	January 14, 2021
February 17, 2021	10:15 am	Topeka	January 27, 2021
March 2, 2021	11:00 am	Conference Call	February 11, 2021
March 17, 2021	10:15 am	Topeka	February 24, 2021
March 30, 2021	11:00 am	Conference Call	March 11, 2021
April 14, 2021	10:15 am	FHSU	March 24, 2021
May 4, 2021	11:00 am	Conference Call	April 15, 2021
May 19, 2021	10:15 am	Topeka	April 28, 2021
June 1, 2021	11:00 am	Conference Call	May 13, 2021

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

**MINUTES  
Tuesday, November 18th, 2020**

The November 18th, 2020 meeting of the Board Academic Affairs Standing Committee (BAASC) of the Kansas Board of Regents was called to order by Regent Kiblinger at 11:00 a.m. The meeting was held by Zoom.

**In Attendance:**

Members:	Regent Kiblinger, Chair Regent Brandau-Murguia	Regent Schmidt	Regent Van Etten
Staff:	Daniel Archer Amy Robinson Cindy Farrier	Karla Wiscombe Sam Christy-Dangermond Scott Smathers	Tara Lebar Steve Funk Diane Lindeman
Others:	Jean Redeker, KU Melinda Roelfs, PSU Howard Smith, PSU Shirley Lefever, WSU Linnea GlenMaye, WSU Michelle Schoon, Cowley CC David Cordle, ESU Robert Klein, KUMC Erin Shaw, Highland CC	Aron Potter, Coffeyville CC Brian Niehoff, K-State Monette DePew, Pratt CC Jill Arensdorf, FHSU Lori Winningham, Butler CC Jerry Pope, KCKCC Adam Borth, Fort Scott CC Aleks Sternfeld-Dunn, WSU Kim Zant, Cloud CC	Jane Holwerda, Dodge City CC Kim Morse, Washburn Elaine Simmons, Barton County CC Sarah Robb, Neosho CC Cindy Hoss, Hutchinson CC Kaye Monk-Morgan, WSU Mickey McCloud, JCCC Jennifer Brown, NCKCC Jason Sharp, Labette CC

Regent Kiblinger welcomed everyone. Roll call was taken for members and presenters.

**Approval of Minutes**

Regent Schmidt moved to approve the November 3<sup>rd</sup>, 2020 meeting minutes, and Regent Van Etten seconded the motion. With no corrections or discussion, the motion passed.

**2020 TAAC Quality Assurance Subcommittee Report**

Melinda Roelfs presented the report. This report was also presented at the 2020 KCOG Conference on October 16<sup>th</sup>, 2020. Melinda shared from the report a brief overview of TAAC and their responsibilities, how they have approached quality assurance over time, underscored work being done by faculty across the state within core outcome groups, and shared specific data on student performance in sequential courses. The report can be found on the KBOR website at:

[https://www.kansasregents.org/resources/PDF/Academic\\_Affairs/TAAC/2020\\_Quality\\_Assurance\\_Report\\_v4-2\\_FINAL.pdf](https://www.kansasregents.org/resources/PDF/Academic_Affairs/TAAC/2020_Quality_Assurance_Report_v4-2_FINAL.pdf).

Melinda highlighted Kansas's accomplishments. The National Student Clearinghouse has an annual report with completion rates for students who start at a two-year public institution and receive a degree from a four-year institution within six years, and Kansas was ranked #1 in 2020.

During the 2020 KCOG Conference, faculty articulated core outcomes for 6 new courses and reviewed 13 previously approved courses for core outcomes updates. Once approved, courses are placed under review every five-years. Melinda noted that over 300 faculty participated in the 2020 conference. The six new courses will be reviewed through TAAC and presented to the Board for approval and inclusion in systemwide transfer.

Melinda reviewed marketing efforts for Kansas transfer. She encouraged everyone to use #TransferKS and utilize and share the Kansas Transfer portal found at [https://www.kansasregents.org/academic\\_affairs/transfer-articulation](https://www.kansasregents.org/academic_affairs/transfer-articulation). She noted the portal helps streamline academic advising and provides transparency.

Regent Schmidt and Regent Van Etten asked for clarification if technical colleges were included in the data presented. Technical colleges are included in the transfer data. Committee members discussed how the transfer data could be used for the Board's Strategic Plan metrics and how it speaks to affordability and student success.

### **Apply Kansas**

Tara Lebar provided an update on Apply Kansas. Apply Kansas college application month runs throughout October and is a statewide application event focusing on completing college applications. The program was launched five years ago by April Cozine with some financial contributions from KBOR. This is the first year KBOR is providing oversight for the program. Tara discussed program details and provided past and 2020 data. She noted in 2020, high school participation was up 50%; however, student participation was slightly down, probably due to the pandemic. Events were conducted in person and through Zoom, and KBOR institution partnerships provided valuable assistance to increase student participation. Tara anticipates future increases in college, student, and high school participation. Committee members used the provided map of participating schools to discuss areas to encourage for future participation.

Regent Schmidt asked if data on student diversity and underserved populations, such as how many first-generation students participate, can be tracked. Regent Kiblinger noted that anything highlighting impact with underserved populations could encourage increased participation with more school districts. Apply Kansas has the potential to impact underserved populations in Kansas positively.

Information on Apply Kansas, including resources for participation and a map of participating schools, can be found on the KBOR website at <https://www.kansasregents.org/students/apply-kansas>.

### **Low Enrollment Program Reviews**

Last spring, the Board discussed low enrollment programs as one of the 2020-2021 Board Goals. At that time, the Board concluded state universities would review all their undergraduate low enrollment programs under strategic program alignment. K-State and WSU presented today, KU and FHSU will present in December, and ESU and PSU will present in January. The process will include an introductory review by BAASC and a second and final review by the Board.

Chuck Taber presented K-State's report as provided in the agenda. K-State has seven programs listed for low numbers of majors and graduates and are recommending continuation of all. Chuck noted that they have a continuous internal evaluation process, resulting in the elimination of 14 programs over the last five years. Chuck provided K-State's reasons for recommending the continuation of each as outlined in his report. Each of the seven programs has been reviewed through K-State's evaluation process, and K-State believes they serve their mission and serve their students.

Regent Van Etten asked for additional data on enrollment numbers. Chuck provided the five-year average number of majors and graduates for each program:

1. BS in American Ethnic Studies has 10 majors and 4 graduates
2. BS in Gender, Women, and Sexuality Studies has 15 majors and 7 graduates
3. BA in Humanities has 8 majors and 7 graduates
4. BS in Physical Sciences has 12 majors and 3 graduates
5. BA/BS in Medical Laboratory Sciences / 12 majors and 1 graduate
6. BS in Statistics has 21 majors and 6 graduates
7. AS in Applied Business has 16 majors and 6 graduates

Regent Van Etten expressed concerns with programs that do not meet the determined criteria used for the elimination of programs. She questioned if K-State has considered modifying courses by putting them into other majors or programs. Chuck responded that these students have opportunities to move into other majors associated with other programs and there are natural connections through faculty. Chuck noted they have begun conversations on potential modifications to increase the number of majors and asked that they be allowed to continue pursuing those modifications instead of eliminating the programs. Chuck stated they have data to show substantial employment opportunities and believes letting students know about potential job markets can make these programs more attractive. Regent Van Etten asked if there was a way to combine programs or create minors within related majors in an effort to follow criteria set for each university. She understands the reason to allow #6 and #7 a chance to grow, but asked if #1 and #2 could be converted to a minor or modified. Chuck responded they are looking along those lines through their current conversations and noted there is little to no cost in offering those programs. Chuck stated these courses must be offered, and the question for him is more about how to structure these programs to be more attractive to students.

Regent Kiblinger commented that given this is a Board goal, the reports being reviewed by BAASC first allow Regents to provide feedback before the report goes to the Board to help each institution be prepared for questions. She believes the Board expects to see recommendations for changes, which could include deleting programs or making changes to viable programs. Regent Kiblinger stated from the presentation provided she feels it lacks a clear explanation of the cost-effectiveness. While reviews are not solely based on cost-effectiveness, Regent Kiblinger stated this would be a driving factor due to the current economic climate and declining enrollment. She noted when K-State presents to the Board in December they should include internal conversations, timelines, cost analysis, and occupational economic outlooks, and asked if K-State has this type of information available. Chuck responded they can include this in the report to the Board next month. Committee members discussed briefly the sense of urgency that surrounds potential future cuts in funding. Universities should also be looking at a plan if this happens.

Shirley Lefever presented the WSU report as provided in the agenda, and also provided a PowerPoint presentation, which will be emailed to all institutional representatives. She discussed the WSU review process and how it feeds into the KBOR review cycle. They have listed seven programs that fell below the minimum enrollment threshold. Four of these programs have either merged, changed names, or were discontinued. Shirley focused her presentation on the three remaining programs and shared their progress and the reasoning to keep each.

Regent Kiblinger asked for future clarification on what merging programs means and specifically what potential cost savings this creates for efficiencies. Regent Van Etten stated they would also like to see a more inclusive data chart with recent years. Regent Schmidt encouraged WSU to look at a plan for potential cuts to funding. Regent Kiblinger encouraged WSU to add more detail on how merging programs creates efficiencies and the economic outlook for employment in these areas.

### **Additional Updates**

Regent Schmidt provided an update from the Direct Support Professionals (DSP) Working Group. He noted the WSU Work Group has led the way and has held meetings with key players. He believes they may launch a badge program for high school curriculum followed by dual credit opportunities as soon as fall 2021. Shirley Lefever is leading WSU efforts, and she provided a brief overview. Shirley stated they have been working with several community agencies that serve older adults and individuals with disabilities to create badge courses that will provide training to individuals who want to pursue careers in this area. She noted they are also working with area high schools to put together CTE pathways for students to obtain dual credits that will feed into majors such as Special Education, Social Work, or health care professions. These efforts will help address the shortage of DSP workers in Kansas.

Regent Kiblinger provided a brief update from the Coordinating Council. Regent Kiblinger stated the next meeting would be on December 7<sup>th</sup>. She noted that working groups have been formed, and she is impressed with the variety of representation from across the state and all institutions. These groups will provide an update at the next BAASC meeting.

**Adjournment**

The committee noted they may want to take a more detailed look at the low enrollment report metrics. If the criteria were spelled out in more detail, it might help the universities and the Regents reviewing these programs. KBOR staff will provide information that the committee can discuss at the next meeting.

The next BAASC meeting is scheduled for December 1<sup>st</sup> at 11:00 a.m.

Regent Schmidt moved to adjourn the meeting, and Regent Brandau-Murguia seconded the motion. With no further discussion, the meeting adjourned at 12:16 p.m.

## **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. Board staff concurs with the Council of Presidents and the Council of Chief Academic Officers in recommending approval.*

*December 1, 2020*

### **I. General Information**

**A. Institution** Wichita State University

### **B. Program Identification**

Degree Level: Bachelor's degree  
Program Title: Applied Linguistics  
Degree to be Offered: Bachelor of Arts  
Responsible Department or Unit: Liberal Arts and Sciences/Department of English  
CIP Code: 16.0105  
Modality: Face-to-Face  
Proposed Implementation Date: Spring 2021

Total Number of Semester Credit Hours for the Degree: 120

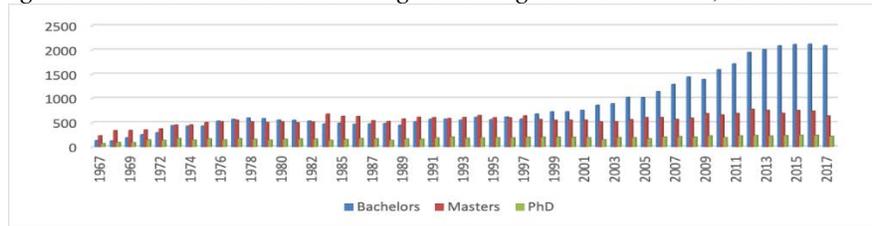
**II. Clinical Sites:** Does this program require the use of Clinical Sites? No

### **III. Justification**

The proposed BA degree in Applied Linguistics arises out of a student need for an option to major in linguistics and it is intended as an interdisciplinary major for a diverse student population. Linguistics, as an academic field, has seen tremendous growth in the last 70 years and it is currently at the forefront of interdisciplinary research in artificial intelligence, data science, computer science, speech pathology, natural language processing, and marketing and branding strategies. The BA program of study is designed to be flexible, to accommodate multiple content concentrations while providing enhanced academic training and the highest quality of applied learning experience. Connected to this is WSU's recent investment in a High-Performance Computing (HPC) infrastructure and personnel to provide an arena for applied learning and research in large data sets of natural language corpora. The BA program will enable undergraduate students to specialize in a subfield of linguistics and offer them the skill sets needed to pursue graduate school and doctorate programs, or find job placements in the industry.

Linguistics is particularly appealing to underserved student populations as more and more Native American languages are being revitalized and studied under several sub-fields of linguistics. In addition, linguistics is a new and emerging academic program that could lead to potential growth in enrollment at Wichita State. There are several summer schools targeting Native American populations and other minority groups. Advertising the new BA in Applied Linguistics at these venues could lead to increased enrollment. Linguistics plays a vital role in community engagement. Several linguistics classes taught at Wichita State currently include a service to the community component. This aligns with Wichita State's applied learning mission. In the last decade or so, the undergraduate linguistics degree production in linguistics has seen the fastest growth in universities.

Figure 1: Trends in Growth in Linguistic Degrees 1967-2018; Source IPEDS



In addition, a linguistics degree comes with several research opportunities. The National Science Foundation classifies linguistics under social sciences and has funded many research projects in linguistics over the past years. Students pursuing an applied linguistics major can pursue paid internships in research labs across the country. The introduction of an applied linguistics major provides an opportunity for Wichita State to place itself on the national map of linguistics research. It will broaden Wichita State’s ability to become an educational, cultural, and economic driver in the region.

The proposed major builds on an existing linguistics minor. This minor is an interdisciplinary area of study, with courses being taught across two colleges, College of Liberal Arts and Sciences and College of Health Professions. The major requires no additional courses and little to no additional funding to implement. The required courses for the major are already being taught on a regular rotation basis, and the resources needed to support administrative tasks are available.

The BA degree program will be housed in the English department with three interdisciplinary concentrations, as listed below:

**Proposed: Bachelor of Arts in Applied Linguistics**

- General linguistics concentration
- Speech pathology and communication sciences concentration
- Computer science and data science concentration

**IV. Program Demand:**

The only university in Kansas that has an active linguistics program is the University of Kansas, which has a Department of Linguistics offering a BA in Linguistics, MA in Linguistics, and a PhD in Linguistics. Emporia State University, Fort Hays State University, Pittsburg State University, and Kansas State University offer neither a linguistics minor nor a major. Kansas State University offers a certificate in Linguistics. The new BA degree program at Wichita State builds on a thriving linguistics minor. Currently, there have been 30 students enrolled in the minor since Fall 2016, when the minor was officially revived. Wichita State is suitably placed to serve under-represented minorities and low-income populations in Southern Kansas who may be interested in majoring in linguistics and cannot afford to relocate to Lawrence, KS or out of state.

**A. Survey of Student Interest: Including Past and Current Students**

Number of surveys administered: .....	70
Number of completed surveys returned: .....	48
Percentage of students interested in program: ...	73%

Results of a survey from 48 current students at Wichita State and recent graduates provides descriptive information regarding the need of a BA degree. Thirty-six percent of the respondents were in their senior year. Out of the 48 respondents, ninety-six percent of them had taken a linguistics class at Wichita State and ninety-four percent will

recommend linguistics classes to their friends. Ninety-six percent of them responded they thought the new linguistics major will benefit the student population at Wichita State. Seventy-two percent of the respondents would consider majoring in linguistics if the major was available in their freshman year and seventy-five percent will recommend the major to their friends.

Since Fall 2016, six linguistics minors have graduated from Wichita State and they have all expressed interest in pursuing an MA in linguistics or a doctoral program in linguistics. In addition, a graduate of the English program is currently pursuing a PhD in Hispanic Linguistics at another university, after defending an MA thesis in linguistics at Wichita State. Student comments in the survey clearly indicate that Wichita State has lost students to other universities due to the lack of the linguistics major.

## **B. Market Analysis**

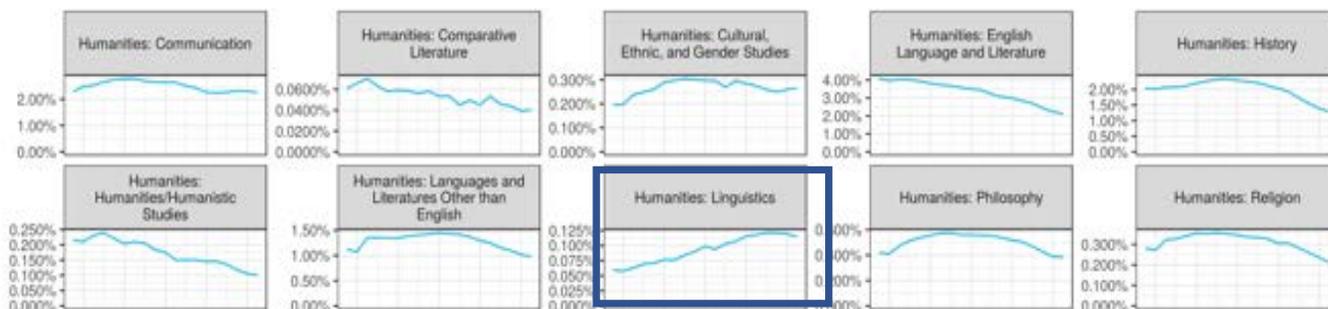
The Linguistics Society of America's 2016 Annual Report notes that the field of linguistics is growing most rapidly for undergraduates, with an increase of approximately 120 more students awarded BA degrees annually for the past 14 years. Most of these linguistics undergraduate degrees are awarded to women. Although women represent over half of graduate students in linguistics, a number which has been increasing over the last 50 years, women comprise 57 percent of the undergraduate population, surpassing the amount of male undergraduate recipients. The major is appealing to diverse sets of population, including Hispanic, Asian, African American, American Indian ethnicities. In addition, in a recent article, Schmidt (2018) writing about the decline of majors in humanities, says "The only bright spot is linguistics, the rare field that bridges the humanities and the sciences directly." This is motivated by the fact that linguistics is the sole field in the humanities that has shown an upward trajectory in terms of enrollment for Bachelors (see, Figure 2 below).

Linguists have played key parts in strides made in automated speech recognition, worked to improve dictionaries in mobile phones, and played a huge part in preserving and protecting endangered languages. Adzuna, a UK based recruitment platform, placed linguistics in the top 5 best career prospects with over 9,000 job vacancies. In addition, the International Linguistics Olympiad, annually held since 2003, is one of 12 International Science Olympiads for secondary school students. If brought to Wichita, this would be a good strategy to recruit students from schools in and around the Wichita school district. Many students would be compelled to join WSU and pursue linguistics, if they see the appeal and the lucrative career options the major offers.

Linguistics fits right in with the innovation campus mission of WSU. In a recently concluded Applied Learning Showcase in November 2017, all of the 8 student presentations were from linguistics courses offered in English and Modern and Classical Languages and Literatures. Many students work in the community as translators, health care specialists, helping refugees resettle in Wichita, and working with community partners such as Lord's Diner and Kansas Food Bank to serve the homeless, thus spreading the message of public good and merging community with public impact.

Linguistics is also at the core of several interdisciplinary initiatives across the US. MIT recently announced funding for a \$1 billion backed college for artificial intelligence. Dr. Rafael Reif, the president, is quoted as saying the college is to "educate the bilinguals of the future." He defines bilinguals as "people in fields like biology, chemistry, politics, history and linguistics who are also skilled in the techniques of modern computing that can be applied to them" (Lohr, 2018).

Figure 2: Degree share of common majors over the last 35 years, Data from NCES IPEDS: Taxonomy building on American Academy of Arts and Sciences, Ben Schmidt, 2018.



When looking at degrees awarded for common majors, linguistics remains the sole major which has consistently seen an upward trajectory across the years. This is in part fueled by the increasing demand for linguists in the tech industry, working alongside computer engineers at Google, Facebook, Apple, Amazon and other companies.

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

Table 1. Projected Enrollment

Year	Headcount Per Year		Sem Credit Hrs Per Year	
	Full- Time	Part- Time	Full- Time	Part- Time
Implementation (AY 2020-2021)	15	0	450	0
Year 2 (AY 2021-2022)	20	0	1080	0
Year 3 (AY 2022-2023)	20	0	1660	0

## VI. Employment

An applied linguistics major is vital to the current trends in employment opportunities. A recent study by Deming (2017) found that jobs requiring both soft skills and thinking skills have seen the largest growth in employment and pay in the last three decades. An interdisciplinary curriculum offered in linguistics provides Wichita State students with both sets of skills. Graduates of the BA degree program work in jobs as diverse as sales, finance, and market research because linguistics combines critical thinking with computational and statistical skills. Along with quantitative skills, and data visualization, the applied linguistics major will also teach students the role of ethics in social media, attitudes towards immigrants and languages in the US, the role of linguistics in providing quality healthcare, and equip them with skills required to solve several problems and challenges at these interfaces.

The interdisciplinary curriculum of this program offers excellent training for a wide variety of careers, including translation, interpreting, teaching, publishing, national security, international affairs, forensics, or medicine, and for graduate study in linguistics or related fields (such as anthropology, law, philosophy, psychology, cognitive science, neuroscience, computer science, or speech and hearing sciences). The proposed applied linguistics program encourages applied learning and service learning. These skill sets can land students in lucrative career options. The innovative nature of the program and its application with computer science, communication sciences, and psychology can lead to increased job opportunities in the tech industry, where linguists work with virtual voice assistants such as, *Alexa*, *Siri*, and dictionary and Adwords projects with *Google*. Students will be encouraged to learn coding and use python for small scale research projects. Creating capstone research opportunities will make students better suited for graduate academic positions, as well as industry positions. In addition, linguistics can easily integrate other innovative certificates and badge courses in Digital Humanities, Food Studies, Big Data, Latinx, and STEM initiatives, as well as prepare educators to work with immigrant and

language minority children.

Figure 3: Searches for positions titled “linguistics” yields the following numbers of job listings

Website for job listings	Number of linguistics jobs listed
Glassdoor	9,323
Ziprecruiter	5,860
Indeed	5,055
SimplyHired	3,561
LinkedIn	3,000
HigherEdJobs	642
InsideHigherEd	439

A search conducted on various job posting websites for “linguistics” jobs yields several job results, suggesting linguists are in high demand across the nation. These job listings include positions in the industry, both private and public, as well as jobs in higher education. In addition, the U.S Bureau of Labor Statistics has projected a job growth of 11% between 2018-2028, which is faster than average. Median salary for linguists’ jobs is \$81,340.

#### *Sample Careers after a B.A. in Applied Linguistics*

- Receive a B.A. in Applied Linguistics and teach English in a foreign country. Many students pursue teaching in countries such as Spain, China, Korea, Russia or Japan.
- Receive a B.A. in Applied Linguistics, coupled with excellent multilingual skills, and work as an interpreter. For example, interpreters of American Sign Language are in demand in many places in the U.S.
- Receive a B.A. in Applied Linguistics, coupled with a concentration of courses in computer science, and obtain positions in technology companies creating computers that can comprehend and produce human languages. For example, many new search engines work on the basis of natural languages. In recent years, the demand for people with such backgrounds has exploded, and linguists are in high demand. With *Siri*, *Alexa*, and *Cortana* leading the way to a new age in artificial intelligence, the intersection of linguistics and computer science is a very lucrative one.

#### *PROFESSIONS*

- academic
- broadcaster
- community service language policy adviser
- editor or publisher
- government and non-government professional roles
- journalist
- language policy, logistics or management roles
- language researcher
- policy researcher/adviser
- TESOL practitioner
- interpreter/translator

#### *EMPLOYERS*

- An international career in language related areas
- Education
- Government departments concerned with immigrants and language policy

- Non-government organizations and community service providers
- Speech technology research companies
- NSA and FBI

## VII. Admission and Curriculum

### A. Admission Criteria

**If you are a freshman Kansas resident (under 21 years of age) graduating in 2015 or later, you must:**

1. Achieve an ACT composite score of 21 or above OR a minimum combined SAT-I score of 1080, **OR**
2. Rank in the top 1/3 of your high schools' graduating class, **AND**
3. Complete the [Kansas Qualified Admissions Pre-College Curriculum](#) with at least a 2.00 grade point average (GPA) on a 4.00 scale. **Out-of-state residents** must earn a 2.50 or higher GPA on a 4.00 scale.

**If you graduated from a non-accredited high school or were homeschooled, you must:**

Complete coursework equivalent to the [Kansas Qualified Admissions Pre-College Curriculum](#) with a 2.00 GPA and achieve an ACT score of 21 or above or a combined SAT-I score of at least 980. If you enroll in college courses while in high school, you must achieve a 2.00 GPA or higher in those courses.

### B. Curriculum

120 hours are required for graduation, and students must earn a 2.0 overall GPA, a 2.0 Wichita State GPA, and a 3.0 GPA in the major. Students must also complete all courses required for Liberal Arts and Sciences General Education. In addition, Foreign Language courses (or the equivalents) are required for every BA degree in the College of Liberal Arts and Sciences.

Curriculum in the first year is the same for all three concentrations.

#### Year 1: Fall

SCH = Semester Credit Hours

Course #	Course Name	SCH....
ENGL 101	College English I	3
COMM 111	Public Speaking	3
MATH 111	College Algebra	3
FYS 102d	Cross Cultural Communication	3
	Any humanities general education course	3

#### Year 1: Spring

Course #	Course Name	SCH....
ENGL 102	College English II	3
	Any social sciences general education course	3
	Any natural sciences general education course	3
	General education elective 1 <sup>st</sup> of 3	3
LING 151	The Nature of Language	3

Curriculum varies for each of the three concentrations in years two through five.

#### 1. Plan of study for the General Linguistics concentration

#### Year 2: Fall

Course #	Course Name	SCH....
	Any fine arts general education	3
	General education elective 2 <sup>nd</sup> of 3	3
LING 152	The Language of Food	3

LING 315	Introduction to English Linguistics	3
	Free elective 1	3

**Year 2: Spring**

Course #	Course Name	SCH....
LING 304	Early Language Development	3
LING 317	History of the English Language	3
LING 270	American Sign Language	3
	Foreign Language I	5
	General Education elective 3 <sup>rd</sup> of 3	3

**Year 3: Fall**

Course #	Course Name	SCH....
LING 351	Linguistics and Foreign Language or LING 352 Anthropological Linguistics	3
PHIL 325	Formal Logic	3
	Foreign Language 2	5
	Free elective 2	3

**Year 3: Spring**

Course #	Course Name	SCH....
LING 306	Applied Phonetics	3
LING 667	Languages and Language Attitudes in the US	3
	Free elective 3	3
	Foreign Language 3	5

**Year 4: Fall**

Course #	Course Name	SCH....
	Free elective 4	3
	Free elective 5	3
	Free elective 6	3
	Free elective 7	3
LASI 481	Internship introduction	3

**Year 4: Spring**

Course #	Course Name	SCH....
LING 506	Acoustic and Perceptual Phonetics	3
LING 668	Field Methods in Linguistics	3
LING 481	Linguistics Capstone course	3
	Free elective 8	3
LASI 481	Internship	3

**Total Number of Semester Credit Hours ..... [120]**

**2. Plan of Study for the Speech Pathology and Communication Sciences Concentration (collaboration with the Department of Communication Sciences and Disorders, College of Health Sciences)**

**Year 2: Fall**

Course #	Course Name	SCH....
	Any fine arts general education	3
	General education elective 2 <sup>nd</sup> of 3	3
CSD 251	Auditory Development and Disorders	3
LING 315	Introduction to English Linguistics	3
	Free elective 1	3

**Year 2: Spring**

Course #	Course Name	SCH....
LING 304	Early Language Development	3
LING 306/306L	Applied Phonetics and Lab	3
LING 270	American Sign Language	3
	Foreign Language I	5
	General Education elective 3 <sup>rd</sup> of 3	3

**Year 3: Fall**

Course #	Course Name	SCH....
CSD 301	Anatomy and Physiology of the Speech and Hearing Mechanisms	3
CSD 512	Communication in Special Populations: Children	3
	Foreign Language 2	5
	Free elective 2	3

**Year 3: Spring**

Course #	Course Name	SCH....
LING 506	Acoustic and Perceptual Phonetics	3
HS 570	Neuroscience for Health Professionals	3
	Free elective 3	3
	Foreign Language 3	5

**Year 4: Fall**

Course #	Course Name	SCH....
	Free elective 4	3
	Free elective 5	3
	Free elective 6	3
	Free elective 7	3
LASI 481	Internship introduction	3

**Year 4: Spring**

Course #	Course Name	SCH....
HS 571	Neuroscience for Health Professionals	3
HS 572	Neuroscience for Health Professionals	3
LING 481	Linguistics Capstone course	3
	Free elective 8	3
LASI 481	Internship	3

**Total Number of Semester Credit Hours ..... [120]**

**3. Plan of Study for the Computer Science and Data Science Concentration (in collaboration with the Department of Electrical Engineering and Computer Science, College of Engineering)**

**Year 2: Fall**

Course #	Course Name	SCH....
	Any fine arts general education	3
	General education elective 2 <sup>nd</sup> of 3	3
CS 211	Introduction to Programming	3
STAT 370	Elementary Statistics	3
	Free elective 1	3

**Year 2: Spring**

Course #	Course Name	SCH....
CS 311	Object-Oriented Programming	3
LING 315	Introduction to English Linguistics	3
LING 270	American Sign Language	3
	Foreign Language I	5
	General Education elective 3 <sup>rd</sup> of 3	3

**Year 3: Fall**

Course #	Course Name	SCH....
MATH 321	Discrete Mathematics I	3
MATH 322	Discrete Mathematics II	3
	Foreign Language 2	5
	Free elective 2	3

**Year 3: Spring**

Course #	Course Name	SCH....
PHIL 325	Formal Logic	3
CS 400	Data Structures	3
	Free elective 3	3
	Foreign Language 3	5

**Year 4: Fall**

Course #	Course Name	SCH....
	Free elective 4	3
	Free elective 5	3
	Free elective 6	3
	Free elective 7	3
LASI 481	Internship introduction	3

**Year 4: Spring**

Course #	Course Name	SCH....
CS 410	Programming Paradigms	3
LING 664	Quantitative Methods to Humanities and Social Sciences	3
LING 481	Linguistics Capstone course	3
	Free elective 8	3
LASI 481	Internship	3

**Total Number of Semester Credit Hours ..... [120]**

For each of the concentrations, students can take electives from the following courses:

**Table 2 Electives**

Course #	Course Name	SCH....
LING 316	English Sentence Structure	3
LING 318	Dialectology	3
LING 505A	Advanced French Phonetics and Diction	3
LING 505B	Russian Phonology	3
LING 505C	Spanish Phonetics	3
LING 546	Spanish Language Learning	3
LING 547	Spanish in the US	3
LING 635	Introduction to Romance Linguistics	3
LING 651	Language and Culture	3
LING 664	Quantitative Methods in Humanities and Social Sciences	3
LING 667	English Syntax	3
LING 672	Dialectology	3
LING 720	Seminar in Old English	3
LING 740	Graduate Studies in Linguistics	3
PSY 322	Cognitive Psychology	3
PSY 325	Developmental Psychology	3
PSY 405	Human Factors Psychology	3
COMM 360	Applied Communication Strategies	3
CS 211	Introduction to Programming	3
CS 510	Programming Language Concepts	3
CI 324	Linguistics for Elementary Teachers	3
CI 775	Applied Linguistics: ESL/Bilingual Teacher(s)	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
*Mythili Menon	Assistant Professor	PhD in Linguistics	Y	Syntax, Semantics, Morphology, Psycholinguistics, Language Documentation	1.0
Rachel Showstack	Associate Professor	PhD in Hispanic Linguistics	Y	Sociolinguistics	0.25
Douglas Parham	Associate Professor	PhD in Communication Sciences and Disorders	Y	Phonetics, Communication Sciences and Disorders	0.25

Jeffrey Hershfield	Professor	PhD in Philosophy	Y	Philosophy of Language, Formal Logic	0.25
Jens Kreinath	Associate Professor	PhD in Anthropology	Y	Anthropological Linguistics, Fieldwork	0.25
Andrew Hippisley	Professor and Dean of Liberal Arts and Sciences	PhD in Linguistics	Y	Computational Linguistics, Morphology, Syntax, Typology, Historical Linguistics	0.25
Francis Connor	Associate Professor	PhD in Literature	Y	Digital Humanities, Old English	0.25
New Hire in Linguistics (In Third FY)	Assistant Professor	PhD in Linguistics	Y	General Linguistics	1.0

Number of graduate assistants assigned to this program ..... [0]

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

<b>A. EXPENDITURES</b>	First FY	Second FY	Third FY
<b>Personnel – Reassigned or Existing Positions</b>			
Faculty	193,684	196,590	199,538
Administrators ( <i>other than instruction time</i> )	0	0	0
Graduate Assistants	0	0	0
Support Staff for Administration ( <i>0.25 FTE reassigned</i> )	9750	9896	10,000
Fringe Benefits ( <i>total for all groups</i> ) (18.26%)	37,147	37,704	38,262
Other Personnel Costs	0	0	0
<b>Total Existing Personnel Costs – Reassigned or Existing</b>	\$240,581	\$244,190	\$247,800
<b>Personnel – – New Positions</b>			
Faculty	0	0	55,000
Administrators ( <i>other than instruction time</i> )	0	0	0
Graduate Assistants	0	0	0
Support Staff for Administration ( <i>e.g., secretarial</i> )	0	0	0
Fringe Benefits ( <i>total for all groups</i> )	0	0	10,043
Other Personnel Costs	0	0	0
<b>Total Existing Personnel Costs – New Positions</b>			\$65,043
<b>Start-up Costs - - One-Time Expenses</b>			
Library/learning resources	0	0	0
Equipment/Technology	0	0	10,000
Physical Facilities: Construction or Renovation	0	0	0
Other	0	0	0
<b>Total Start-up Costs</b>			\$10,000

<b>Operating Costs – Recurring Expenses</b>			
Supplies/Expenses	0	0	0
Library/learning resources	0	0	0
Equipment/Technology	0	0	0
Travel (for recruitment purposes)	1,000	1,000	1,000
Other (Linguistics Club, Language & Linguistics Colloquium)			
<b>Total Operating Costs</b>	\$1,000	\$1,000	\$1,000
<b>GRAND TOTAL COSTS</b>	\$241,581	\$245,190	\$323,843

<b>B. FUNDING SOURCES</b> <i>(projected as appropriate)</i>	Current	First FY (15 New students)	Second FY (15 New students)	Third FY (20 New students)
Tuition / State Funds (credit hour fees total)	0	102,640.50	246,337.20	378,629.40
Student Fees	0	3,487.50	8,370.00	12,865.00
Other Sources (Per semester tuition)	0	20,375.40	47,542.60	74,709.80
<b>GRAND TOTAL FUNDING</b>	0	\$126,503.40	\$302,249.80	\$466,204.20
<b>C. Projected Surplus/Deficit (+/-)</b> (Grand Total Funding <i>minus</i> Grand Total Costs)		(\$115,077.60)	+\$57,059.80	+\$142,361.20

## X. Expenditures and Funding Sources Explanations

### A. Expenditures

#### Personnel – Reassigned or Existing Positions

Existing faculty teaching linguistics classes or in the linguistics program will continue to administer the program and teach the classes required for the degree program. Salary and fringes for the FTEs reassigned have been calculated and added to Section VIII Core Faculty. The program director, Mythili Menon, directs the linguistics minor and she is currently at 1.0 FTE in the linguistics track in the department.

#### Personnel – New Positions

In the third year of implementation of the major, we plan to hire a new faculty in linguistics *with support of Academic Affairs*, to teach core courses in phonology, computational linguistics, and develop innovative courses to strengthen and build the linguistics program.

#### Start-up Costs – One-Time Expenses

Existing computers and desks can be used for faculty and instructors and therefore no new funding is requested.

## **Operating Costs – Recurring Expenses**

A budget for travel related to recruitment has been allotted for the first three years of the implementation of the program.

### **B. Revenue: Funding Sources**

Funding from tuition is based on \$228.09 per credit hour for full-time students. Funding from mandatory fees is based on \$7.75 per credit hour for full-time students. The per-semester mandatory student fee is \$679.18, and a total of \$1,358.36 per year. All the fees have been calculated for 15 new students in Year 1, 20 new students in Year 2 and 20 new students in Year 3 according to the credit hours taken per year.

### **C. Projected Surplus/Deficit**

The program is profitable from Year 2 of implementation, bringing in a surplus revenue of \$57,059.80 in Year 2, and \$142,361.20 in Year 3, after the addition of the new faculty hire.

## **XI. References**

1. Deming, D. (2017). “The Growing Importance of Social Skills in the Labor Market”, *Quarterly Journal of Economics*. Volume 132, Issue 4, 1 November 2017, pp. 1593 -1640.
2. Lohr, S. (2018, Oct 15). MIT Plans College for Artificial Intelligence, Backed by \$1 Billion. Retrieved from <https://www.nytimes.com/2018/10/15/technology/mit-college-artificial-intelligence.html>.
3. Schmidt, Benjamin. “The Humanities are in Crisis.” *The Atlantic*. August 23, 2018.
4. The State of Linguistics in Higher Education, Annual Report 2018, Sixth Edition, February 2019.

## 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. Board staff concurs with the Council of Presidents and the Council of Chief Academic Officers in recommending approval.*

*December 1, 2020*

## I. GENERAL INFORMATION

### A. Institution

Wichita State University

### B. Program Identification

Degree Level:	Master's
Program Title:	Data Science
Degree to be Offered:	MS in Data Science
Responsible Department/Unit:	Electrical Engineering and Computer Science / College of Engineering
CIP Code:	30.7099
Modality:	Face-to-Face
Proposed Implementation Date:	Spring 2021

Total Number of Semester Credit Hours for the Degree: 30

## II. CLINICAL SITES None

## III. JUSTIFICATION

Data has been referred to as the “oil of the digital economy” due to its immense potential to optimal decision making (“The World’s Most,” 2017). **Data Science** (D.S.) deals with the generation of data, processing of it, and application and development of solutions using, but not limited to, machine learning, deep learning, and artificial intelligence. Big data is one of the most rapidly emerging topics in the world, creating a high demand for employees with expertise in various aspects of D.S. While this demand is global, due to the engineering and manufacturing nature of Wichita, it is especially important here.

Wichita State University (WSU) is strongly dedicated to supporting this data revolution by making teaching and research of data science and analytics an institutional priority. In support, WSU has recently invested in a High-Performance Computing (HPC) infrastructure and personnel. In this light, the MS in Data Science is one of the three distinct albeit aligned programs being proposed (the other two are in Business –MS in Business Analytics]; Liberal Arts and Sciences – MS in Mathematical Foundations of Data Analysis) to further this priority. All three share foundational coursework in business analytics, as well as other electives offered among the three colleges. The College of Engineering has elevated **computing and informatics** to a major priority and has made commitments for realigning and creating new programs in this field. In addition, WSU has chosen **Digital Transformation** as one of the pillars in *Convergent Sciences Initiative* and will be investing resources to help industry engage with academia in this space – data science is central to these efforts. Finally, the EECS Department

has been allocated new resources to hire Dr. Dukka KC (director of the proposed program) as an Associate Professor to increase the D.S. capabilities at WSU and to create leadership potential in this space.

This proposed program offers students numerous opportunities to learn how to build a data pipeline and transform raw data in ways that provide end-users a competitive advantage. Starting with a broad survey of data science and analytics, the bulk of the program focuses on the algorithmic and computing aspects of D.S. The integrated curriculum includes a capstone project focused on hands-on/experiential learning. This proposed program clearly advances WSU’s mission to be an **essential educational, cultural, and economic driver for Kansas and the greater public good** by graduating students who are highly skilled in the sought-after field of data science.

Among public universities in Kansas, Kansas State University has an M.S. in Data Analytics program which is housed in College of Business and the University of Kansas has a M.S. in Applied Statistics and Analytics housed within the University of Kansas Medical Center. Although both of these programs help to fill some of the gap in the number of professionals with these skills, the available/unfilled D.S. related jobs are ever-increasing. In addition, the proposed program is unique as the focus is to develop data scientist and engineers who are well versed in algorithmic and computational thinking to develop data science related tools and infrastructure. Moreover, the majority of WSU students are from (or within 30 miles of) Wichita, thus locating a graduate program in Data Science at WSU provides the educational opportunity for students in the region.

#### **IV. PROGRAM DEMAND**

##### **A. Survey of Student Interest**

Number of surveys administered:	250
Number of completed surveys returned:	100
Percentage of students interested in program:	81%

The survey was sent to 250 undergraduate and graduate students in the Department of Electrical Engineering and Computer Science (EECS) at WSU to inquire about the need for a master’s degree in Data Science program. 57% percent of the respondents are undergraduate students while 43% are graduate students. Among these students, almost half (51%) were already taking some data science-related courses. Among the respondents, 91% saw significant value in a data science program at WSU. Similarly, 82% of the respondents said that they would consider enrolling in an M.S. D.S. program if it were offered. Finally, 87% of the respondents said that they would likely recommend this program to their friends.

##### **B. Market Analysis**

The *Harvard Business Review* calls data science the “**sexiest job of the 21<sup>st</sup> Century**” (Davenport & Patil, 2012). In addition, there is a significant demand for professionals with data science skills. Various reports and reviews have consistently pointed out the large gap in the number of professionals with these skills and available jobs in this area. Moreover, there has been a steady increase in the employment of data scientists, but demand is expected to grow even faster. According to Glassdoor, data scientist was the top job in America for the second year in a row in 2017 (Junco, 2017). In addition, Glassdoor cites that top among the benefits of a career in data science is a median base salary of \$110,000 and a knowledge base that is applicable to practically any field. This report also states that overall job satisfaction that comes with being a data scientist ranks 4.4 out of 5 dominating over several other highly-sought-after careers for the title of “best job.” The field of data science is experiencing rapid growth as new technology is developed and more data becomes available.

Data science growth is only expected to continue to develop and expand in the future. In fact, the Bureau of Labor Statistics (BLS), which reports employment data throughout the United States, has projected a 31% increase for statisticians and data scientists by the year 2026. BLS is not the only entity highlighting this as an essential current need. The same report from Glassdoor mentions that seven of the top ten spots are related to information

technology (IT), and four are related to data management, including data engineer, analytics manager, database administrator, and mobile developer. In fact, recent data from job sites show that there has been a 29% increase in demand for data scientists year after year and a 344% increase since 2013 (Flowers, 2019).

A recent report from the American Statistical Association (ASA) highlights the continued growth and demand for graduates with data science and analytical skills (2019). LinkedIn recently highlighted the fact that data science dominates the ranking of emerging jobs searched/available (Dignan, 2019). Of potential concern, searches by job seekers skilled in data science grew at a slower pace (14%), suggesting an increasing gap between supply and demand, which may be partially due to D.S. skills being typically acquired via an M.S. degree (Kolakowski, 2020). In response, D.S. M.S. programs are being developed rapidly across the country, and will soon become as critical as e.g., biology or psychology programs. Finally, the need is such, that a few of our own EECS graduates have already been hired as data analysts/scientists without having formal extensive education in data science. In sum, we are very excited about the job prospects for our future D.S. graduates.

## V. PROJECTED NEW ENROLLMENT FOR INITIAL THREE YEARS OF PROGRAM

Year	Headcount Per Year		Semester Credit Hours Per Year	
	Full-Time	Part-Time	Full-Time	Part-Time
Implementation	15	0	270	0
Year 2	30	5	720	45
Year 3	30	5	900	90

## VI. EMPLOYMENT

A Bureau of Labor Statistics (BLS) report, “Occupational Outlook Handbook, Mathematicians and Statisticians,” as well as other private sector reports, “Data Scientist: A Hot Job that Pays Well” (Flowers, 2019), and “New Report Highlights Growing Demand for Data Science, Analytics Talent, Steps for Higher Ed and Business Recommended” (ASA, 2019), clearly demonstrate the sharply increasing gap between the need for students with data science-related degrees and the supply of these students. In addition, the employment market for data scientists is robust, with a growing need for qualified data scientists/engineers. Through the aforementioned surveys and reports, it has also been well established that this need spans a variety of industries including technology, finance, telecommunications, manufacturing, service, retail, banking, cybersecurity, and others (Smith Hanley Associates LLC, 2018). Critically, the BLS also shows that Wichita, Kansas, is one of the metropolitan areas with a high demand for such jobs.

According to a recent jobs report by Glassdoor, based on the number of job openings, salary, and overall job satisfaction, data scientist is ranked number one, with more than 4,000 job openings; data engineer is ranked number three, with more than 2,500 job openings; and analytics manager is ranked number five, with almost 2,000 job openings (Junco, 2017). In addition, the number of data scientists has more than doubled over those five years, and the number of data engineers sextupled. Training in data science is relevant to many job titles, including statistician, computer systems analyst, software developer, database administrator, computer network analyst, data scientist, data analyst, data engineer, and data manager.

The proposed program with its state-of-the art curriculum and the inclusion of a real-world capstone will enable students to develop an array of competitive skills that will enable them to pursue a wide range of data science career paths. Some of the potential employment opportunities for graduates with a master’s in D.S. include data scientist, data engineer, business intelligence specialist, data analyst, and others.

## VII. ADMISSION AND CURRICULUM

### A. Admission Criteria

Students will be admitted in full graduate standing in the M.S. in Data Science program if they have a bachelor's degree in computer science or any related engineering discipline and a GPA of at least 3.00, and also meet the Graduate School's other requirements. Students who have a bachelor's degree in other quantitative disciplines (Mathematics, Physics, or other disciplines) with demonstrated quantitative skills (calculus, linear algebra, etc.) and proficiency in computer programming may be admitted on a conditional basis.

Application materials will be reviewed by the Graduate School and the Data Science graduate coordinator, after which the student will be notified of their decision. Students entering the M.S. in Data Science program are expected to have already completed courses in programming, linear algebra, statistics, and data structures. If prior coursework deficiencies exist, then the student may be admitted on a conditional basis. It is recommended that deficiencies are completed prior to beginning graduate studies.

### B. Curriculum

The proposed program emphasizes development of the next generation of data scientists and engineers. Students graduating from the program will master the skills to build the infrastructure for delivering insights from raw data sources, as well as implement data science pipelines and workflows for acquiring, cleaning, transforming, analyzing, and visualizing data to provide descriptive, predictive, and prescriptive analytics. The program includes a curriculum to develop sought-after skills in various aspects of data science and engineering to prepare a skilled workforce in the area of data science.

The overall objectives of the proposed M.S. in Data Science program are to ensure that a graduating student possesses the following:

- Technical knowledge on data science principles, computational tools and algorithms, data science life cycle, data-driven problem-solving process, and management of data and information to solve data-intensive problems and to describe and transform data to knowledge/information.
- Effective communication and technical knowledge in cleaning, processing, analyzing data and effective visualization so that they are able to communicate solutions to stake holders and broader audience.
- Knowledge of modern machine learning techniques and data science tools and software skills to build predictive and analytical workflows.

To achieve these objectives, the curriculum will consist of 30 credit hours, including core courses that all students must complete, computer science (CS) elective courses, and other elective courses (cf. **Table 1**). Students must complete 15 credit hours of core courses that will provide sufficient background in data science, including Data Science, Mathematical Foundation of Data Science, Machine Learning, and Business Analytics. The curriculum will also require each student to complete a Capstone Project in Data Science course. They must also complete nine credit hours of elective coursework in CS, and six hours of elective coursework from other related disciplines. Depending upon the student's background, all 15 elective credits may be obtained from CS electives. Particularly noteworthy is that nine credits (one course per) are shared between the three programs being proposed together, **giving students a unique "bird's eye" view of the full data science and analytics space – from theory to practice to business implementation.**

The curriculum requires 30 hours for graduation, and students must earn a 3.0 overall GPA. One of the salient features of the MS curriculum is that each student must take the Capstone Project in Data Science course. Students in this course will engage in all data science life-cycle process topics including data collection, preprocessing, transformation, exploratory data analysis, visualization, predictive modeling, descriptive modeling, clustering, regression and classification, and data science project life cycle. The project topic will come from an academic research group, industry, government, other stakeholders, or other sources that mimic a real-world data science problem. Please refer to the syllabus of the capstone course for details about this. Almost all the courses are existing courses besides the capstone course.

**Table 1: MS in Data Science Program Course Schedule**

**Year 1: Fall**

**SCH = Semester Credit Hours**

Course #	Course Name	SCH....
CS 697AK	Introduction to Data Science	3
BSAN 775**	Perspectives on Business Analytics	3
MATH 746**	Introduction to Data Analytics	3

**Year 1: Spring**

Course #	Course Name	SCH....
CS 697AB	Machine Learning	3
DSE	Data Science Elective Course (see Table 2)	3
DEC/DSE	Discipline Elective Course or Data Science Elective Course (see Table 2)	3

**Year 2: Fall**

Course #	Course Name	SCH....
DSE	Data Science Elective Course (See Table 2)	3
DSE	Data Science Elective Course (See Table 2)	3
DEC/DSE	Discipline Elective Course or Data Science Elective Course (See Table 2)	3

**Year 2: Spring**

Course #	Course Name	SCH....
CS 896**	Capstone Project in Data Science	3

\*\* represents new course

**Total Number of Semester Credit Hours ..... [30]**

**Table 2: MS in Data Science Program Courses**

Course No.	Course Name	Credits
<b>Five Required Courses—15 Credits</b>		
CS 697AK	Introduction to Data Science	3
BSAN 775**	Perspectives on Business Analytics	3
MATH 746**	Introduction to Data Analytics	3
CS 697AB	Machine Learning	3
CS 896**	Capstone Project in Data Science	3
<b>Three Data Science Elective Courses (DSE) —9 Credits</b>		
CS 665	Introduction to Database Systems	3
CS 771	Artificial Intelligence	3
CS 797I	Introduction to Bioinformatics	3
CS 898AS	Deep Learning: Theory, Algorithms and Applications	3
CS 898AJ	Big Data Analytics	3
CS 898BE	Advanced Topics in Machine Learning	3
CS 898CA	Introduction to Intelligent Robotics	3

Course No.	Course Name	Credits
CS 898BA	Image Analysis and Computer Vision	3
CS 898AW	Artificial Intelligence for Robotics	3
CS 898D	Data Mining	3
CS 898BD	Deep Learning	3
<b>Two Other Discipline Elective Courses (DCE) —6 Credits</b>		
MIS 750	Business Intelligence and Analytics	3
STAT 763	Applied Regression Analysis	3
STAT 764	Analysis of Variance	3
STAT 776	Applied Statistical Methods	3
IME 780AP	Neural Networks and Machine Learning	3
IME 869	Bayesian Statistics and Uncertainty Quantification	3
SMGT 800	Analytics and Decision Making in Sport	3
IME 780AN	Big Data Analytics in Engineering (if CS 898AJ not taken)	3
IME 734	Introduction to Data Mining and Analytics (if CS 898D not taken)	
MIS 884	Database Management and Planning	3
BSAN 875	Advanced Business Analytics	3

\*\* represents new course

### VIII. CORE FACULTY

Faculty Name	Rank	Highest Degree	Tenure Track (Y/N)	Academic Area of Specialization	FTE Devoted to Proposed Program
Dukka KC*	Assoc. Professor	Ph.D	Y	Data Science/Bioinformatics	30%
Rajiv Bagai	Professor	Ph.D.	Y	Web Anonymity, Deductive Databases	10%
Sourabh Bose	Asst. Professor	Ph.D.	N	Machine Learning	10%
Hongsheng He	Asst. Professor	Ph.D.	Y	Intelligent Robotics	10%
Vinod Namboodiri	Professor	Ph.D.	Y	Mobile Computing	5%
Ajita Rattani	Asst. Professor	Ph.D.	Y	Biometrics, Computer Vision	20%
Sergio Salinas	Asst. Professor	Ph.D.	Y	Privacy and Security	5%
Kaushik Sinha	Assoc. Professor	Ph.D.	Y	Machine Learning/Data Mining	15%

\*Director of Program

FTE: 1.0 FTE = Full-Time Equivalency; In FTE we also consider that all tenure track faculty have responsibilities for service and research in addition to teaching.

Number of Graduate Assistants Assigned to this program: 2 - 7

**IX. Expenditure and Funding Sources**

<b>A. EXPENDITURES</b>	<b>First FY</b>	<b>Second FY</b>	<b>Third FY</b>	
<b>Personnel—Reassigned or Existing Positions</b>				
Faculty	\$103,931	\$107,049	\$213,261	
Administrators ( <i>other than instruction time</i> )	\$14,931	\$15,379	\$15,840	
Graduate Assistants	\$19,200	\$19,776	\$40,145	
Support Staff for Administration ( <i>e.g., secretarial</i> )	\$7,665	\$7,895	\$8,132	
Fringe Benefits ( <i>total for all groups</i> )	\$44,154	\$45,479	\$83,305	
Other Personnel Costs	--	--	--	
<b>Total Personnel Costs—Reassigned or Existing</b>	<b>\$189,881</b>	<b>\$195,578</b>	<b>\$360,683</b>	
<b>Personnel—New Positions</b>				
Faculty	--	\$95,000	\$95,000	
Administrators ( <i>other than instruction time</i> )	--	--	--	
Graduate Assistants	--	\$19,776	\$33,990	
Support Staff for Administration ( <i>e.g., sec</i> )	--	--	--	
Fringe Benefits ( <i>total for all groups</i> )	--	\$31,977	\$33,399	
Other Personnel Costs	--	--	--	
<b>Total Personnel Costs—New Positions</b>	<b>\$0</b>	<b>\$146,753</b>	<b>\$162,389</b>	
<b>Start-Up Costs—One-Time Expenses</b>				
Library/learning resources	--	--	--	
Equipment/Technology	--	\$60,000	\$60,000	
Physical Facilities: Construction or Renovation	--	--	--	
Other	--	--	--	
<b>Total Start-Up Costs—One-Time Expenses</b>	<b>\$0</b>	<b>\$60,000</b>	<b>\$60,000</b>	
<b>Operating Costs—Recurring Expenses</b>				
Supplies/Expenses	\$2,000	\$3,000	\$4,000	
Library/Learning Resources	--	--	--	
Equipment/Technology	--	\$12,000	\$24,000	
Travel	--	--	--	
Other	--	--	--	
<b>Total Operating Costs—Recurring Expenses</b>	<b>\$2,000</b>	<b>\$15,000</b>	<b>\$28,000</b>	
<b>GRAND TOTAL COSTS</b>	<b>\$191,881</b>	<b>\$417,331</b>	<b>\$611,072</b>	
<b>B. FUNDING SOURCES (projected)</b>	<b>Current</b>	<b>First FY (New)</b>	<b>Second FY (New)</b>	<b>Third FY (New)</b>
Tuition/State Funds		\$143,688.60	\$397,028.70	\$506,950.20
College Course Fees		\$13,500	\$38,250	\$49,500
Student Support Fees		\$20,375.40	\$62,258	\$83,765.20
<b>GRAND TOTAL FUNDING</b>		<b>\$177,564.00</b>	<b>\$497,536.70</b>	<b>\$640,215.40</b>
<b>C. Projected Surplus/Deficit (+/-)</b> (Grand Total Funding <i>minus</i> Grand Total Costs)		(\$14,317.00)	\$80,205.70	\$29,143.40

## X. EXPLANATIONS OF EXPENDITURES AND FUNDING SOURCES

### A. Expenditures

#### Personnel—Reassigned or Existing Positions

- **For the first year:**
  - The table from Core Faculty was taken and salaries are multiplied by the FTE. Note that this merely represents a slight reorganization as this cost is latent.
  - Administrator is calculated as 8% of the Chair's salary (again, a latent cost).
  - Two GTAs are calculated for the 270 credit hours.
  - Support staff cost is calculated as 25% of the current graduate secretary's salary (latent cost).
  - Fringe is calculated based on the current WSU fringe rates.
- **For the second year:**
  - All costs are increased by an estimated 3% of raise.
- **For the third year:**
  - All costs are increased by an estimated 3% of raise.
  - Expenses from the second year *new* are carried to the third year *existing* and increased by 3%.

#### Personnel—New Positions

- **For the first year:**
  - The estimated 15 student enrollment can be managed by existing resources as most of the costs are latent.
- **For the second year:**
  - We estimate the enrollment to increase by 30 students, meaning we should consider adding an additional faculty member. The cost in this case is 100% of the new faculty's salary as this program will be the reason to hire that faculty.
  - The increase in credit hours also requires 2 more GTAs (with a very lean 200CH/GTA estimate)
- **For the third year:**
  - We estimate the enrollment to increase by an additional 30 students, meaning a second new faculty member should be considered. Again, the cost is 100% of the new faculty's salary as this program will be the reason to hire this person.
  - The increase in credit hours will require an additional 3 GTAs (with a very lean 200CH/GTA estimate – averaging for this number to be an integer)
  - All costs are increased by an estimated 3% of raise

#### Start-Up Costs—One-Time Expenses

- **For the first year:**
  - Current resources are sufficient.
- **For the second year:**
  - 30 computers for a lab are included (at \$2k each) to keep up with student population growth.
- **For the third year:**
  - An additional 30 computers for a lab are included (at \$2k each) to keep up with continued student population growth.

#### Operating Costs—Recurring Expenses

- **For the first year:**
  - Supplies (copying, office supplies) are estimated at \$2k.
- **For the second year:**
  - Supplies are estimated at \$3k.
  - 30 computers amortized over 5 years result in \$12k latent cost.
- **For the third year:**
  - Supplies are estimated at \$4k.
  - 60 computers amortized over 5 years result in \$24k latent cost.

## B. Revenue: Funding Sources

Revenue is calculated based on the enrollment table from Section V:

- \$307.98 graduate tuition is calculated for half the full-time student credit hours.
- \$756.38 international graduate tuition is calculated for the other half of full-time student credit hours since we are expecting a large portion of the D.S. students to be international.
- All part-time student credit hours are calculated using the \$307.98 tuition.
- Student fee:
  - 7.00 or more credit hours \$679.18/fall or spring semester
  - 4.00-6.75 credit hours \$452.78/fall or spring semester
- \$50 per credit is added to all credit hours for the program fee applied to all College of Engineering programs.

## C. Projected Surplus/Deficit

- While the first year shows a deficit, this is a latent cost (which is far outweighed by the opportunity cost of not developing the program). Most costs are covered through current resources with a small reorganization.
- With the addition of two faculty, we expect the program to grow, with healthy surpluses over time, which will allow for additional paid GTA's.

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## **Program Approval**

### **Summary**

*Universities may apply for approval of new academic programs following the guidelines in the Kansas Board of Regents Policy Manual. Wichita State University has submitted an application for approval and the proposing academic unit has responded to all of the requirements of the program approval process. Board staff concurs with the Council of Presidents and the Council of Chief Academic Officers in recommending approval.*

*December 1, 2020*

### **I. General Information**

#### **A. Institution**

Wichita State University

#### **B. Program Identification**

Degree Level: Master's  
Program Title: Business Analytics  
Degree to be Offered: Master of Science in Business Analytics (MSBA)  
Responsible Department or Unit: Finance, Real Estate, and Decision Sciences Department (FREDS)  
CIP Code: 52.1301  
Modality: Hybrid<sup>1</sup>  
Proposed Implementation Date: Spring 2021

Total Number of Semester Credit Hours for the Degree: 30

### **II. Clinical Sites:**

Does this program require the use of Clinical Sites? No

### **III. Justification**

Over the past five years, Wichita area companies have increasingly asked WSU to provide business analytics training for their current employees and future employees. As a result, the Center for Management Development (WSU's non-credit professional training organization) began to offer business analytics classes for these companies' employees. The Barton School of Business created a business analytics undergraduate certificate and minor, as well as a graduate MBA concentration. These options have allowed students to specialize in business analytics at the MBA level or while majoring in a traditional business discipline (e.g., Finance, Human Resource Management, and Marketing) at the undergraduate level. However, the demand for business analysts has increased significantly in recent years. Wichita companies have indicated the need for higher level analytical skills, which the Barton School is proposing to address through a Master's of Science degree in Business Analytics (MSBA). This program will help the Wichita area businesses, and their employees, gain the skills they need to be successful in the future.

Wichita State University is strongly dedicated to supporting and making teaching and research of data science and analytics an institutional priority. In support, WSU has recently invested in a High-Performance Computing (HPC)

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<sup>1</sup> In hybrid modality, the students will take classes in face-to-face, online, and hybrid (combination of face-to-face and online) format. Classes may be 8-week or 16 weeks long.

infrastructure and personnel. In this light, the MS in Business Analytics is one of the three distinct albeit aligned programs being proposed (the other two are in Engineering - MS in Data Science, and Liberal Arts and Sciences - MS in Mathematical Foundations of Data Analysis) to further this priority. All three share foundational coursework in business analytics, as well as other electives offered among the three colleges.

#### **IV. Program Demand**

##### **A. Survey of Student Interest**

A survey was sent to Barton School graduate and undergraduate students (i.e., business students) asking about their interest in a graduate Business Analytics program at WSU. The key findings of the survey were:

Number of surveys administered:	1,983
Number of completed surveys returned:	128
Percentage of students interested in program:	66%

- Of the 34 graduate students who responded, 24 (70.6%) indicated they would be interested in pursuing a MSBA.
- Of the 94 undergraduates who responded, 60 (64%) indicated they would be interested in studying business analytics.
- The survey asked, on a scale 0-10, to what degree “would you be interested in seeking work that involves business analytics?” The mean score was 7.40.
- The survey asked, on a scale 0-10, to what degree “would you be interested in business analytics training to grow your skill set?” The mean score was 8.00.

##### **B. Market Analysis**

The FREDS department conducted a roundtable discussion of 12 Wichita area business leaders to assess their need for employees with business analytic skills. The business leaders represented Cargill, Koch, Spirit, Airbus, Textron Aviation, CURO Financial Technologies, IMA Financial Group, and Thrive Restaurant Group. The roundtable participants indicated they were interested in hiring full-time employees with business analytics skills in the near future. They were interested in hiring student interns, and they would be interested in conducting class projects with business analytic classes.

The key insights gained from the roundtable discussion are as follows:

- 84% of the participants indicate a need for graduates or students in the Analytics area.
- 91% agreed the need will be for both graduate and undergraduate students
- Participants indicated employees with analytics skills should have some experience with tools such as Excel, Power BI, Tableau, Alteryx, SQL, R, Python, and SAP.

A list of business analytics programs at competitor and peer universities is provided in Appendix 1. Specifically, our MSBA program is distinct from other programs in Kansas in multiple ways. The focus of the MSBA program at the Barton School will be primarily to serve full time and part time students and requires a capstone class that emphasizes applied learning. Our emphasis on an applied capstone experience is congruent with the mission and vision of Wichita State, which includes dynamic partnerships with our community businesses and organizations. Our students will be working closely with our community partners in their capstone project. We believe the program will also be attractive to potential students living in the I-35 corridor due to the competitive pricing offered by WSU.

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

Year	Headcount Per Year			Semester Credit Hrs. Per Year		
	Full- Time	Part- Time	Total	Full- Time	Part- Time	Total
Year 1	3	7	10	54	105	159
Year 2	5	20	25	126	405	531
Year 3	10	25	35	240	675	915

## VI. Employment

The Bureau of Labor Statistics' (BLS) Occupational Outlook Handbook demonstrates the growing need of students with Analytics backgrounds in Business. The projected growth for operational research (OR) analysts from 2018 to 2028 is 26%. The BLS also shows the Wichita metropolitan area has a high demand for OR jobs with a 2018 annual mean wage of \$89,630 (highest range in the nation). The table below shows a summary of 2018 annual median salaries, 2018 actual jobs, and 2018-2028 growth projections for various Analytics jobs.

Occupation	2018 Annual Median Pay	2018 Number of Jobs	Job Outlook (2018-28)
Operations Research (OR) Analysts	\$83,390	109,700	+ 26% (average growth)
Budget Analysts	\$76,220	56,900	+ 4% (average growth)
Compensation, Benefits, and Job Analysis Specialists	\$63,000	88,700	+ 6% (average growth)
Financial Analysts	\$85,660	329,500	+ 6% (average growth)
Management Analysts	\$83,610	876,300	+14% (average growth)
Market Research Analysts	\$63,120	681,900	+20% (average growth)

In addition to the BLS data, results of the roundtable discussion of 12 Wichita area companies shows strong demand for talent with business analytics skills.

## VII. Admission and Curriculum

### A. Admission Criteria

Admission to the MSBA program will be granted to applicants who show a high likelihood of success in postgraduate business education. Previous academic training in business is not required for admission to the MSBA program. Applicants may have backgrounds in diverse fields such as engineering, liberal arts, education and health related areas. The specific content of a student's previous education is less important than the evidence that the student has sound scholarship, strong personal motivation, and the ability to develop business analytics skills.

To be admitted to the MSBA program, an applicant must:

- 1) possess an undergraduate degree
- 2) have a minimum GPA 3.00 (out of 4.00) in the last 60 hours of coursework (graduate and/or undergraduate). Students with a GPA lower than 3.00 may apply with GRE or GMAT scores for consideration
- 3) submit a personal statement that clearly states the applicant's reason for seeking admission to the program (500 words maximum)
- 4) submit a professional resume

- 5) meet the minimum TOEFL and IELTS requirements set by the WSU Graduate School (only for students with English as a second language)

Applicants needing a F1 visa must also provide documentation for financial support.

**B. Curriculum**

The program is designed to attract a wide range of domestic and international professionals. The curriculum will focus on developing contemporary competencies via innovative hands-on activities and industry practices. To serve the needs of professionals in the field, the MSBA program will offer two tracks - Management and Data Science:

**Management track** focuses on developing capabilities and mastery in leading analytics initiatives.

**Data Science track** aims to impart mastery in the use of innovative tools and techniques in data analytics.

The overall objectives of the proposed M.S. in Business Analytics are to ensure that graduating students possess the following:

- The ability to understand the different business domains and communicate with stakeholders to frame the business problem
- Learn to collect data form various sources, transform it, organize it into a database, then query it to get the necessary data for analysis
- Understand the different statistical and mathematical models, and accompanying software, used in Descriptive, Predictive, and Prescriptive Analytics
- Manage and deploy a complete Analytics solution to a real business problem, from data collection to finding the appropriate Analytics solution to communicating the solution with stakeholders

Both programs require pre-requisites (preparatory requirements) that can be waived based on the undergraduate degree and professional background of the applicant. The students will be required to complete 24 credit hours of core courses and select six credit hours of elective courses for a total of 30 credits.

**Preparatory Requirements** (May be waived with equivalent courses as the undergraduate or graduate levels or with appropriate professional experience.)

- Calculus
- Statistics
- Fundamentals of Accounting
- Fundamentals of Finance
- Basics of Marketing
- Basics of Management
- Operations Management

**M.S. in Business Analytics (MSBA) – Management Track**

**Year 1: Fall**

**SCH = Semester Credit Hours**

Course #	Course Name	SCH....
BSAN 775	Perspectives on Business Analytics	3
MIS 884	Database Management and Planning	3
MGMT 803	Decision Making Analysis	3

**Year 1: Spring**

Course #	Course Name	SCH....
BSAN 875	Advanced Business Analytics	3
MIS 750	Business Intelligence and Analytics	3
ECON 803	Analysis of Business Conditions and Forecasting (or IME 880Y – Forecasting and Analytics)	3

**Year 2: Fall**

Course #	Course Name	SCH....
BSAN 734	Introduction to Data Mining and Analytics (or IME 734)	3
	Elective 1	3
	Elective 2	3

**Year 2: Spring**

Course #	Course Name	SCH....
BSAN 885	Business Analytics Capstone	3

**Total Number of Semester Credit Hours ..... [30]**

**Elective Courses (6 credits)**

- ACCT 860 – Accounting Information Systems
  - DS 755 – Project Management
  - DS 860 – Enterprise Resource Planning
  - HRM 803 – Human Resource Analytics
  - FIN 790A – Finance Analytics: Contemporary and Traditional Topics
  - FIN 865 – Advanced Investment and Portfolio Management
  - MIS 690D – Cloud Computing
  - CS 697AK – Perspectives on Data Science
  - IME 883 – Supply Chain Analytics
  - MATH 746 – Perspectives on Mathematical Foundations of Data Science
  - SMGT 800 – Analytics & Decision Making in Sports
- Any COURSE with program director consent

**M.S. in Business Analytics (MSBA) – Data Science Track****Year 1: Fall****SCH = Semester Credit Hours**

Course #	Course Name	SCH....
BSAN 775	Perspectives on Business Analytics	3
CS 697AK	Perspectives on Data Science	3
MATH 746	Perspectives on Mathematical Foundations of Data Science	3

**Year 1: Spring**

Course #	Course Name	SCH....
BSAN 875	Advanced Business Analytics	3
BSAN 734 or IME 734	Introduction to Data Mining and Analytics	3
CS 697AB	Machine Learning	3

**Year 2: Fall**

Course #	Course Name	SCH....
MIS 884	Database Management and Planning	3
	Elective 1	3
	Elective 2	3

**Year 2: Spring**

Course #	Course Name	SCH....
BSAN 885	Business Analytics Capstone	3

**Total Number of Semester Credit Hours ..... [30]**

**Elective Courses (6 credits)**

- DS 860 – Enterprise Resource Planning
- MIS 690D – Cloud Computing
- MIS 750 – Business Intelligence and Analytics
- FIN 790A – Finance Analytics: Contemporary and Traditional Topics
- FIN 865 – Advanced Investment and Portfolio Management
- ECON 803 – Analysis of Business Conditions and Forecasting or IME 880Y – Forecasting and Analytics
- IME 780AN – Big Data Analytics in Engineering
- IME 780AP – Neural Networks and Machine Learning
- PSY 902/903 – Advanced Statistics
- Any course with program director consent

**VIII. Core Faculty**

Faculty Name	Rank	Highest Degree	Tenure Track Y/N	Academic Area of Specialization	FTE to Proposed Program
Sue Abdinnour	Program Director, Professor	PhD	Y	Decision Sciences	0.5
New Faculty Member (start in Fall 2022)	Assistant Professor	PhD	Y	Business Analytics	1.0

FTE: 1.0 FTE = Full-Time Equivalency Devoted to Program

In addition to the faculty listed in the table, four additional faculty members from the Barton School of Business will teach classes that are included in the core curriculum of the program. These classes are currently included in other master’s programs at the Barton School of Business and are taught on a regular basis. Similarly, three additional faculty from the College of Engineering and one faculty from the College of Liberal Arts will teach classes that are included in the core curriculum of the program, but are also already offered in those colleges on a regular basis. Support letters from the department chairs in those colleges, and the availability of capacity in the existing classes, are available in appendix 2. This comes to a total of 3.5 FTE faculty required for teaching the core classes of this program. The inter-disciplinary nature of the program and the data science track opens opportunities for engaging faculty members from other colleges as well. There are many courses from various colleges listed as elective courses that students can take to fulfill the requirements for this program.

Other faculty from the Business School teaching in the MSBA program include:

Khawaja Saeed	Professor	PhD
Steve Farmer	Professor	PhD
Akmal Mirsadikov	Assistant Professor	PhD
Farhad Tadayon	Adjunct, Spirit Aero systems	PhD
Mike Bush	Senior Research Economist, CEDBR	PhD

Number of graduate assistants assigned to this program: first year: 1; second and third years: 2.

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

<b>A. EXPENDITURES</b>	First FY	Second FY	Third FY
<b>Personnel – Reassigned or Existing Positions</b>			
Faculty	\$74,300	\$74,300	\$74,300
Administrators ( <i>other than instruction time</i> )	TBD	TBD	TBD
Graduate Assistants	0	0	0
Support Staff for Administration ( <i>e.g., secretarial</i> )	0	0	0
Fringe Benefits ( <i>total for all groups</i> )	\$22,290	\$22,290	\$22,290
Other Personnel Costs	0	0	0
<b>Total Existing Personnel Costs – Reassigned or Existing</b>	\$96,590	\$96,590	\$96,590
<b>Personnel – New Positions</b>			
Faculty	0	\$126,000	\$126,000
Overloads and Adjuncts	\$16,000	0	\$0
Administrators ( <i>Program Coordinator Stipend</i> )	0	0	0
Graduate Assistants	\$12,000	\$24,000	\$24,000
Support Staff for Administration ( <i>e.g., secretarial</i> )	0	\$10,000	\$10,000
Fringe Benefits ( <i>total for all groups</i> )	\$6,480	\$44,160	\$44,160
Other Personnel Costs	0	0	0
<b>Total Existing Personnel Costs – New Positions</b>	\$34,480	\$204,160	\$204,160
<b>Start-up Costs - One-Time Expenses</b>			
Library/learning resources	0	0	0
Equipment/Technology	0	0	0
Physical Facilities: Construction or Renovation	0	0	0
Other	0	0	0
<b>Total Start-up Costs</b>	0	0	0
<b>Operating Costs – Recurring Expenses</b>			
Supplies/Expenses	\$1,000	\$3,000	\$3,000
Library/learning resources	0	0	0

Equipment/Technology	\$5,000	\$10,000	\$10,000
Travel	0	\$8,000	\$8,000
Other	\$4,000	\$9,000	\$9,000
<b>Total Operating Costs</b>	\$10,000	\$30,000	\$30,000
<b>GRAND TOTAL COSTS</b>	\$141,070	\$330,750	\$330,750

<b>B. FUNDING SOURCES</b> <i>(projected as appropriate)</i>	Current	First FY (New)	Second FY (New)	Third FY (New)
Tuition / State Funds	0	\$61,076	\$191,787	\$335,610
Student Fees	0	\$11,206	\$36,900	\$62,822
Barton School Program Fees	0	\$7,950	\$26,550	\$45,750
Other Sources – School Support	0	0	0	0
<b>GRAND TOTAL FUNDING</b>	0	\$80,232	\$255,237	\$444,182
<b>C. Projected Surplus/Deficit (+/-)</b> <i>(Grand Total Funding minus Grand Total Costs)</i>		<b>(\$60,838)</b>	<b>(\$75,513)</b>	<b>\$113,432</b>

## X. Expenditures and Funding Sources Explanations

### A. Expenditures

#### Personnel—Reassigned or Existing Positions

- **For the first, second, and third year:**
  - Faculty: Half FTE of an existing faculty position will be reassigned to the program.
  - A significant number of the courses in the MSBA program are currently offered, and existing faculty members will continue to teach these courses.
  - Fringe is calculated based on the current WSU fringe rates.
- **For the second year:**
  - Faculty overload and adjunct instructor pay is eliminated with hiring of a new faculty
  - Administrative support staff is budgeted at \$10,000
- **For the third year:**
  - Administrative support staff is budgeted at \$10,000

#### Personnel—New Positions

- **For the first year:**
  - The necessary MSBA courses will be taught by an adjunct professor or/and faculty receiving overload compensation. \$16,000 is budgeted for this purpose.

- Program launch will be assisted by the hiring of one graduate research assistant (GRA)
- Fringe is calculated based on the current WSU fringe rates.
- **For the second and third year:**
- The estimated growth of enrollments requires an additional new faculty. The cost is 100% of the new faculty's salary. This eliminates the budget for adjuncts/overloads in year 1.
- The estimated enrollment growth also requires an additional GRA.
- Fringe is calculated based on the current WSU fringe rates.

**Start-Up Costs—One-Time Expenses**

- **For the first year:**
- Current resources are sufficient.
- **For the second year:**
- Estimated that current resources will be sufficient
- **For the third year:**
- Estimated that current resources will be sufficient

**Operating Costs—Recurring Expenses**

- **For the first year:**
- Supplies (copying, office supplies) are estimated at \$1,000.
- Equipment/Technology is estimated at \$5,000
- Other expenses estimated at \$4,000
- **For the second year:**
- Supplies are estimated at \$3,000.
- Equipment/Technology expenses are estimated at \$10,000
- Travel expenses are estimated at \$8,000
- Other Expenses are estimated at \$9,000
- **For the third year:**
- Supplies are estimated at \$3,000.
- Equipment/Technology expenses are estimated at \$10,000
- Travel expenses are estimated at \$8,000
- Other Expenses are estimated at \$9,000

**B. Revenue: Funding Sources**

Revenue is calculated based on the enrollment table from Section V:

- \$307.98 per credit of graduate tuition is calculated for half the full-time student credit hours.
- \$756.38 per credit of graduate tuition (out-of-state) is calculated for the other half of full-time student credit hours since we are expecting a portion of the students to be international.
- All part-time student credit hours are calculated using the \$307.98 per credit tuition.
- Student fee:
  - 7.00 or more credit hours      \$679.18/fall or spring semester
  - 4.00-6.75 credit hours          \$452.78/fall or spring semester
  - Summer Fees                      \$113.12/summer session
- Program fee:

- \$50 per credit is applied as a program fee for to all College of Business programs

### **C. Projected Surplus/Deficit**

The reassignment of an existing faculty member and hiring of the new faculty in year 2, the program will generate a deficit in years 1 and 2 and a surplus in year 3 as (\$60, 838), (\$75,513), and \$113, 432 respectively. Once the cost of a new faculty member hire is absorbed in year 2, the surplus in year 3 will continue to grow with growth of enrollments in years 4 and beyond.

## **XI. References**

Association to Advance Collegiate Schools of Business. (2019). 2018-19 Staff Compensation and Demographics Survey: Executive Summary. <https://www.aacsb.edu/data/data-reports/survey-reports/staff-compensation-and-demographics>

U.S. Department of Labor. (2018). Occupational Outlook Handbook – Business and Financial Occupations. Bureau of Labor Statistics. <https://www.bls.gov/ooh/business-and-financial/home.htm>.

**Appendix 1: Analysis of Program at Peer and Competitor Institutions**

	<b>College/School</b>	<b>Analytics Graduate Program</b>
<b>WSU Peer Institutions</b>	<b>New Mexico State University</b>	College of Business NA
	<b>University of Massachusetts – Lowell</b>	Manning Business School M.Sc. in Business Analytics
	<b>University of Nevada Reno</b>	College of Business Online M.Sc. in Business Analytics
	<b>University of North Dakota</b>	College of Business NA
	<b>Wright State University</b>	College of Business Business Analytics Certificate
<b>WSU Aspirant Institutions</b>	<b>Auburn University</b>	School of Business NA
	<b>Clemson University</b>	College of Engineering MBA in Business Analytics
	<b>Oklahoma State University</b>	School of Business Online M.Sc. in Business Analytics and Data Science
	<b>University of Akron</b>	College of Business Administration MBA Concentration
	<b>University of Texas El Paso</b>	College of Business Administration NA
<b>I-35 Major City Universities</b>	<b>UT – Austin</b>	School of Business M.Sc. in Business Analytics
	<b>UT – Dallas</b>	School of Management M.Sc. in Business Analytics
	<b>University of Dallas</b>	College of Business M.Sc. in Business Analytics
	<b>UT – San Antonio</b>	College of Business M.Sc. in Data Analytics
	<b>Texas A&amp;M – San Antonio</b>	College of Business M.Sc. in Business Analytics
	<b>Oklahoma State University</b>	School of Business M.Sc. in Business Analytics
	<b>University of Kansas</b>	School of Business M.Sc. in Business Analytics
	<b>University of Missouri - KC</b>	School of Management NA
	<b>Texas Christian University</b>	School of Business Analytics Certificate
	<b>University of Minnesota</b>	School of Management M.Sc. in Business Analytics
<b>Kansas State University</b>	College of Business M.Sc. in Data Analytics	

## **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. Board staff concurs with the Council of Presidents and the Council of Chief Academic Officers in recommending approval.*

*December 1, 2020*

### **I. General Information**

**A. Institution** Wichita State University

### **B. Program Identification**

Degree Level: Master's Degree  
Program Title: The Mathematical Foundations of Data Analysis  
Degree to be Offered: Master of Sciences  
Responsible Department or Unit: Mathematics, Statistics, & Physics  
CIP Code: 30.7001  
Modality: Face-to-Face  
Proposed Implementation Date: Spring 2021

Total Number of Semester Credit Hours for the Degree: 30

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

### **III. Justification**

Big data has become the revolution of Information Technology which is transforming industries around the world. Along with global demand for employees with expertise in handling “big data”, there has been a growing need for local Wichita companies as well. Wichita State University (WSU) is strongly dedicated to supporting this data revolution by making teaching and research of data science and analytics an institutional priority. As such, at WSU, three distinct albeit aligned interdisciplinary data science master programs are being proposed in parallel. In support, WSU has recently invested in a High-Performance Computing (HPC) infrastructure and personnel.

The MS in Mathematical Foundations of Data Analysis is one of the three distinct albeit aligned programs being proposed. This interdisciplinary program focuses on the mathematical foundation behind data analysis methods. This program is designed for individuals who wish to pursue a mathematical focus within data science at the graduate level.

The primary goal of this program is the fundamental understanding of the mathematics behind data science algorithms and methods. This program will produce professionals who can communicate the principles of data science statistics and analytics and assist with the design and implementation of data systems. However, this will not be a traditional master's program in a math/statistics department that only produces theoretical professionals. This interdisciplinary program will require students to study data science perspectives and applications in

business and engineering. Graduates will have not only in-depth mathematic and statistical understanding of data analysis methods, but also the knowledge of how to apply these methods to different areas within this ever-growing field. We believe this interdisciplinary approach is crucial in creating well-rounded Data Analysis professionals.

The proposed programs will advance WSU’s mission as an economic driver for Kansas and the greater public good by equipping students with the analytical tools they need to thrive in the big data era.

These programs will also meet specific goals in WSU’s Strategic Plan:

- Every student in our proposed programs will gain applied learning experience by working on projects and research within the industry and the community. This will meet the applied learning goal.
- Each student will be required to take core perspective courses from the Business and Engineering School, and they will have the opportunity to take electives outside the Math Department. This will meet the interdisciplinary curricula goal.
- The proposed programs will offer students the greatest number of choices when selecting a career in data science, from theoretical research to technical applications in different fields. This will meet the goal of quality educational opportunities.
- The proposed programs will create opportunities for students to discover new models and creative analytics solutions, any of which may become the next big idea in data science. This will meet the goal of discovery, creation, and transfer of new knowledge.

**IV. Program Demand:**

The proposed program, once approved, would be the first interdisciplinary data science master’s program in Kansas with an emphasis on a mathematical foundation. KSU offers an interdisciplinary MS program in data science but only through the Business School with an emphasis on business applications. KSU’s Statistics Department also offers a data science and analytics track for its MS program, but it is not an interdisciplinary program. The same is true for KU’s MS in statistics with an emphasis in analytics or data science. At WSU, we already offer a Graduate Certificate in the Mathematical Foundations of Data Analytics in the math department, but it is only a one-year program and is not interdisciplinary in nature.

Thus, the proposed interdisciplinary data science program would be unique in Kansas, attracting many students and leading to enrollment growth for WSU.

The innovation campus at WSU would provide a unique locational advantage for this interdisciplinary master’s program. Students in the proposed program would be required to take a data analysis capstone course, which is an individual, directed study in an area of data analysis that is appropriate for each student’s career objectives. On-campus research and applied learning partners (Airbus, Dassault Systemes, and Spirit AeroSystems) would undoubtedly provide many research internship opportunities for students as well.

**A. Survey of Student Interest**

Number of surveys administered: .....	__30__
Number of completed surveys returned: .....	__30__
Percentage of students interested in program: ...	__100%__

Results of a survey from 30 current undergraduate and graduate students in the math department provides descriptive information regarding the need of an interdisciplinary master’s degree program in Mathematical Foundations of Data Analysis. Twenty percent of the respondents are undergraduate students, 33% of the respondents are the current master students, and the rest are PhD students. All the respondents are interested in

choosing this new interdisciplinary master’s degree program. Seventy-three percent of respondents would choose this interdisciplinary data science program if they were given the opportunity to select the program again and the rest of the respondents answered that they may consider choosing this program. Eighty-three percent of the respondents believed that this new program would benefit the students of Wichita State and the rest thought it maybe benefit to the Wichita State. Ninety-three percent of the respondents would recommend this interdisciplinary program to their friends at Wichita State. Some of the respondents even wanted to consider choosing this master’s program as the second program to study.

**B. Market Analysis**

A quick look at most companies big and small suggests the kind of jobs that are going to be in demand for quite some time and most of the ones that deal with mathematics have to do with analyzing data. Data Scientist has been named the best job in America for three years running by Forbes Online, with a median base salary of \$110,000 and 4,524 job openings.

To keep up with the explosion of big data across all industries, colleges and universities have debuted many data analytics programs during the past few years, mostly at the graduate level. The number of master programs in data science has been growing rapidly. Currently, there are more than 250 programs offering master's degrees in analytics or data science at universities based in the U.S., which now produce an estimated 8,000 to 10,000 graduates per year.

The reality is that the demand for the data science professionals is so strong that many companies have begun to hire students from the regular statistics program as data analysis professionals. In 2019 Harry Collins from our MS program was hired as a data analyst II and a head of the department in Washington, DC. Currently, one of our master students is working for the police department as a data analyst. On one hand, this fact has shown the strong demand for the data science professionals, on the other hand, it tells us: If our regular master’s program can already produce data science professionals liked by the industry, we have no reason not to be excited about the future graduates from this new interdisciplinary data analysis program.

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

Year	Headcount Per Year		Sem Credit Hrs Per Year	
	Full- Time	Part- Time	Full- Time	Part- Time
Implementation	10	0	180	0
Year 2	15	5	390	45
Year 3	15	5	450	90

**VI. Employment**

The Bureau of Labor Statistics (BLS) clearly demonstrates the growing need of students with analytics backgrounds in business, computer science, and mathematics. The BLS’s publication “Beyond the Numbers” from June 2018 projects growth of operational research (OR) analysts and statisticians as 27.4% and 33.8% respectively from 2016 to 2026. The BLS also shows Wichita, KS is one of the metropolitan areas with high demand for such jobs. A report by IBM predicts demand for data professionals will soar to 28% in 2020 which translates to increase by 364,000 openings to 2,720,000.

In addition to data from BLS and other published reports, the Business School conducted a study to assess the demand for graduates with Analytics background in Wichita, KS. The first study was a roundtable of executives from local businesses. A total of 12 individuals representing 8 companies participated (Spirit, Textron, Airbus, Koch, Cargill, Ametek, Johns Manville, Thrive Restaurant Group). We had them fill a survey to start with, then

introduced them to the interdisciplinary master’s program followed by a discussion. The survey results clearly showed that 91% are in need of hiring full time students and 82% in need of hiring interns. There was consensus about the need to introduce interdisciplinary courses from computer science and mathematics. When asked which department in business they would need to hire analytics expertise in, the highest was operations at 91% and when asked what tools are required of graduates, the highest was Excel.

**VII. Admission and Curriculum**

**A. Admission Criteria**

Students will be admitted to full graduate standing in the Mathematical Foundations of Data Analysis program if they have the equivalent of an undergraduate major in mathematics, have a grade point average of at least 3.000 in mathematics and computer sciences courses and meet Graduate School admission requirements. Students may be admitted on a conditional basis if they do not have all the pre-requisite coursework.

**B. Curriculum**

30 hours are required for graduation, and students must earn a 3.0 overall GPA, a 3.0 GPA in courses required in the program.

**Year 1: Fall**

**SCH = Semester Credit Hours**

Course #	Course Name	SCH....
Math 746	Data Perspectives in Mathematics	3
CS 697AK	Data Perspectives in Engineering	3
DS 775	Data Perspectives in Business	3

**Year 1: Spring**

Course #	Course Name	SCH....
Math 553	Mathematical Modeling	3
CS 697AB	Machine Learning	3
	Statistical Electives	3

**Year 2: Fall**

Course #	Course Name	SCH....
	Statistical Electives	3
	Computing Elective	3
	Other Elective	3

**Year 2: Spring**

Course #	Course Name	SCH....
Math 802	Data Analytics Capstone	3

**Total Number of Semester Credit Hours ..... [30]**

**Statistical Electives Courses**

Stat 763	Applied Regression Analysis	3
Stat 764	Analysis of Variance	3
Stat 776	Applied Statistical Methods II	3

**Computing Elective Courses**

Stat 774	Statistical Computing	3
Math 751	Numerical Linear Algebra	3
CS 560	Design and Analysis of Algorithms	3

**Other Elective Courses**

CS 665	Introduction to Database	3
MIS 600	Database Management System	3
IME 780AN	Big Data Analytics in Engineering	3
DS 875	Advanced Business Analytics	3

**VIII. Core Faculty**

Faculty Name	Rank	Highest Degree	Tenure Track Y/N	Academic Area of Specialization	FTE to Proposed Program
Thomas Delillo	Professor	PhD in Mathematics	Y	Applied/Computational Math	0.3
Adam Jaeger	Assistant Professor	PhD in Statistics	Y	Statistics and Data Science	0.2
Tianshi Lu	Associate Professor	PhD in Mathematics	Y	Applied/Computational Math	0.1
Xiaomi Hu	Professor	PhD in Statistics	Y	Statistics	0.1
Chunsheng Ma	Professor	PhD in Statistics	Y	Statistics	0.1
Jason Clemens	Post Doc	PhD in Mathematics	N	Data Science	0.1
Ziqi Sun	Professor	PhD in Mathematics	Y	PDE and Inverse Problems	0.1

**IX. Expenditure and Funding Sources**

A. EXPENDITURES	First FY	Second FY	Third FY
<b>Personnel—Reassigned or Existing Positions</b>			
Faculty	\$79,692	\$82,083	\$84,546
Administrators ( <i>other than instruction time</i> )	\$6,562	\$6,759	\$6,961
Graduate Assistants	--	--	--
Support Staff for Administration ( <i>e.g., secretarial</i> )	\$6,290	\$6,479	\$6,673
Fringe Benefits ( <i>total for all groups</i> )	\$27,763	\$ 28,596	\$ 29,454
Other Personnel Costs	--	--	--
<b>Total Personnel Costs—Reassigned or Existing</b>	<b>\$120,307</b>	<b>\$123,917</b>	<b>\$127,634</b>
<b>Personnel—New Positions</b>			
Faculty	--	\$80,000	\$82,400
Administrators ( <i>other than instruction time</i> )	--	--	--
Graduate Assistants	--	\$15,038	\$30,996
Support Staff for Administration ( <i>e.g., sec</i> )	--	--	--
Fringe Benefits ( <i>total for all groups</i> )	--	\$24,145	\$25,019

<b>A. EXPENDITURES</b>	<b>First FY</b>	<b>Second FY</b>	<b>Third FY</b>
Other Personnel Costs	--	--	--
<b>Total Personnel Costs—New Positions</b>	<b>\$0</b>	<b>\$119,183</b>	<b>\$ 138,415</b>
<b>Start-Up Costs—One-Time Expenses</b>			
Library/learning resources	--	--	--
Equipment/Technology	--	\$10,000	\$10,000
Physical Facilities: Construction or Renovation	--	--	--
Other	--	--	--
<b>Total Start-Up Costs—One-Time Expenses</b>	<b>\$0</b>	<b>\$10,000</b>	<b>\$10,000</b>
<b>Operating Costs—Recurring Expenses</b>			
Supplies/Expenses	\$1,000	\$2,000	\$3,000
Library/Learning Resources	--	--	--
Equipment/Technology	--	\$2,000	\$4,000
Travel	--	--	--
Other	--	--	--
<b>Total Operating Costs—Recurring Expenses</b>	<b>\$1,000</b>	<b>\$4,000</b>	<b>\$7,000</b>
<b>GRAND TOTAL COSTS</b>	<b>\$ 121,307</b>	<b>\$257,100</b>	<b>\$283,049</b>

<b>B. FUNDING SOURCES</b> (projected)	<b>Current</b>	<b>First FY (New)</b>	<b>Second FY (New)</b>	<b>Third FY (New)</b>
Tuition/State Funds		\$95,792	\$221,409	\$267,199
Student Fees		\$13,584	\$36,223	\$46,410
Other Sources		--	--	--
<b>GRAND TOTAL FUNDING</b>		<b>\$109,376</b>	<b>\$257,632</b>	<b>\$313,609</b>

<b>C. Projected Surplus/Deficit (+/-)</b> (Grand Total Funding <i>minus</i> Grand Total Costs)		<b>(\$11,931)</b>	<b>\$532</b>	<b>\$30,560</b>
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## X. Expenditures and Funding Sources Explanations

### A. Expenditures

#### Personnel—Reassigned or Existing Positions

- **For the first year:**
  - Faculty: Each core faculty's salary is multiplied by the FTE and then take the sum.
  - Administrator: 5% of the Chair's salary.
  - Support staff for Administration: 20% of the current graduate secretary's salary.
  - Fringe is calculated based on the current WSU fringe rates.
- **For the second year:**
  - 3% of raise for all the costs.
- **For the third year:**
  - 3% of raise for all the costs.

#### Personnel—New Positions

- **For the first year:**

- The estimated 10 student enrollment can be managed by existing resources as the existing MS program may undergoes a potential shrinking.
- **For the second year:**
- The estimated 25 student enrollment requires an additional faculty member. The cost is 100% of the new faculty's salary.
- The estimated 25 student enrollment requires an additional GTA.
- **For the third year:**
- The estimated 30 student enrollment require 2 more GTAs.
- All costs are increased by an estimated 3% of raise

#### **Start-Up Costs—One-Time Expenses**

- **For the first year:**
- Current resources are sufficient.
- **For the second year:**
- Due to the enrollment growth, we need 10 computers for a lab (at \$2k each).
- **For the third year:**
- Due to the enrollment growth, we need additional 10 computers for a lab (at \$2k each).

#### **Operating Costs—Recurring Expenses**

- **For the first year:**
- Supplies (copying, office supplies) are estimated at \$1k.
- **For the second year:**
- Supplies are estimated at \$2k.
- 10 computers amortized over 5 years result in \$4k.
- **For the third year:**
- Supplies are estimated at \$3k.
- 20 computers amortized over 5 years result in \$8k

#### **B. Revenue: Funding Sources**

Revenue is calculated based on the enrollment table from Section V:

- \$307.98 of graduate tuition is calculated for half the full-time student credit hours.
- \$756.38 of graduate tuition (out-of-state) is calculated for the other half of full-time student credit hours since are expecting a large portion of the D.S. students to be international.
- All part-time student credit hours are calculated using the \$307.98 tuition.
- Student fee:
- 7.00 or more credit hours      \$679.18/fall or spring semester
- 4.00-6.75 credit hours      \$452.78/fall or spring semester

#### **XI. References**

Columbus, Louis. (2018, Jan. 29). Data scientist is the best job in America according to Glassdoor's 2018 ranking. *Forbes Online*. <https://www.forbes.com/sites/louiscolumnbus/2018/01/29/data-scientist-is-the-best-job-in-america-according-glassdoors-2018-rankings/#296709025535>.

U.S. Department of Labor. (2018). Occupational Outlook Handbook – Business and Financial Occupations. U.S. Bureau of Labor Statistics. <https://www.bls.gov/ooh/business-and-financial/home.htm>.

**Summary**

*In accordance with K.S.A. 74-3202d and the Board-approved Performance Agreement Guidelines and Procedures, the Academic Year 2019 Performance Reports are presented for review. Staff recommends approval of the attached performance reports.*

*December 1, 2020*

**Background**

Through the 1999 adoption of (and subsequent amendments to) K.S.A. 74-3202d, the Kansas Board of Regents is authorized to 1) approve performance agreements (improvement plans) and 2) determine the amount of new state funds awarded as a result of those agreements. In October 2003, the Board adopted a performance agreement model along with funding guidelines. The performance agreement model, which is attached, guides institutions in developing their performance agreements, in which each institution chooses six “indicators” by which their performance will be measured.

As any new funding awarded is dependent upon the institution’s compliance with its Board-approved performance agreement, institutions submitted performance reports to Board staff for Academic Year 2019 (AY 2019). These reports will be the basis of awarding any new funds in July 2021. It is important to note that funds designated by the Legislature for a specific institution or purpose are exempted from these performance funding provisions. A timeline that details the AY 2019 performance reporting, reviewing, and funding cycle is detailed below.



Per the performance agreement funding guidelines which can be found on the KBOR [website](#), institutions establish a baseline for each indicator in the performance report. The baseline is an average of three previous years of data for the given indicator. **Awarding of new funding is based on the following three outcomes for the indicators in the performance report:**

1. maintaining the baseline
2. improving on the baseline or
3. declining from the baseline

The Board annually awards new funds based on the following levels of compliance:

- 100% of New Funding Available  
The Board has determined the institution maintained the baseline or improved from the baseline in **four or more of the indicators.**
- 90% of New Funding Available  
An institution will be awarded 90% of the new funding for which it is eligible if:
  - The institution has made a good faith effort;
  - The effort has resulted in the institution maintaining the baseline or improving from the baseline in **three of the indicators;** and

- The performance report includes specific plans for improvement.
- 75% of New Funding Available  
An institution will be awarded 75% of the new funding for which it is eligible if:
  - The institution has made a good faith effort;
  - The effort has resulted in the institution maintaining the baseline or improving from the baseline in **two of the indicators**; and
  - The performance report includes specific plans for improvement.
- No New Funding Awarded  
The institution did not make a good faith effort, as defined by:
  - Lacking an approved performance agreement;
  - Failing to submit a performance report; or
  - Maintaining or improving from the baseline in only **one indicator, or none of the indicators**.

In cases where an institution qualifies for the 0%, 75%, or 90% funding tier, the institution may make a case to move to the next higher funding tier. In such cases, an institution chooses one indicator for which it did not maintain or improve from the established baseline and submits evidence to BAASC that the indicator meets one or more of the following alternative evaluation criteria:

- Sustained excellence;
- Improvement from the prior year;
- Ranking on the indicator based on a relevant peer group;
- Improved performance using a three-year rolling average of the most recent three years; and/or
- Any extenuating circumstances beyond the control of the institution.

Staff provided a preliminary review and shared any concerns with the institution who subsequently revised the reports and resubmitted. Consistent with the Board’s performance funding guidelines, staff recommends the institutions listed below receive 100% of any new funding for which they are eligible.

<b>University/College</b>	<b>Funding Recommendation</b>	<b>Page</b>
Fort Hays State University	100% funding	51
Pittsburg State University	100% funding	54
Washburn University	100% funding	57
Garden City Community College	100% funding	60
Johnson County Community College	100% funding	63
Kansas City Kansas Community College	100% funding	66
Seward County Community College	100% funding	69
Manhattan Area Technical College	100% funding	72
North Central Kansas Technical College	100% funding	75
Salina Area Technical College	100% funding	78

### Performance Agreement Model

Indicators	Sectors		
	<i>Universities Research Universities</i>	<i>Universities Comprehensive Universities</i>	<i>Community Colleges Technical Colleges</i>
<i>Sector-Specific Indicators</i>	<p>Research universities must include in the performance agreements at least three indicators from the <i>Foresight 2020</i> goals noted below. One of those indicators must include the Goal Three.</p> <ol style="list-style-type: none"> <li>1. Increasing Higher Education Attainment <ul style="list-style-type: none"> <li>• First to second year retention rates</li> <li>• Number of certificates and degrees awarded</li> <li>• Six-year graduation rates</li> </ul> </li> <li>2. Meeting the Needs of the Kansas Economy <ul style="list-style-type: none"> <li>• Performance of students on institutional assessments</li> <li>• Percent of certificates and degrees awarded in STEM fields</li> </ul> </li> <li>3. Ensuring State University Excellence <ul style="list-style-type: none"> <li>• Selected regional and national rankings</li> </ul> </li> </ol>	<p>Comprehensive universities must include in the performance agreements at least three indicators from the <i>Foresight 2020</i> goals noted below. One of those indicators must include Goal Three.</p> <ol style="list-style-type: none"> <li>1. Increasing Higher Education Attainment <ul style="list-style-type: none"> <li>• First to second year retention rates</li> <li>• Number of certificates and degrees awarded</li> <li>• Six-year graduation rates</li> </ul> </li> <li>2. Meeting the Needs of the Kansas Economy <ul style="list-style-type: none"> <li>• Performance of students on institutional assessments</li> <li>• Percent of certificates and degrees awarded in STEM fields</li> </ul> </li> <li>3. Ensuring State University Excellence <ul style="list-style-type: none"> <li>• Performance on quality measures compared to peers</li> </ul> </li> </ol>	<p>Community and technical colleges must include in the performance agreements at least three indicators from the <i>Foresight 2020</i> goals noted below. Institutions must include at least one indicator from each Goal.</p> <ol style="list-style-type: none"> <li>1. Increasing Higher Education Attainment <ul style="list-style-type: none"> <li>• First to second year retention rates of college ready cohort</li> <li>• Three-year graduation rates of college ready cohort</li> <li>• Number of certificates and degrees awarded</li> <li>• Student Success Index</li> </ul> </li> <li>2. Meeting the Needs of the Kansas Economy <ul style="list-style-type: none"> <li>• Performance of students on institutional quality measures<sup>2</sup></li> <li>• Percent of students employed or transferred</li> <li>• Wages of students hired<sup>3</sup></li> <li>• Third party technical credentials and WorkKeys, if applicable</li> </ul> </li> </ol>
<i>Institution-Specific Indicators<sup>4</sup></i>	Universities must also include three indicators specific to the institution which support <i>Foresight 2020</i> .	Universities must also include three indicators specific to the institution which support <i>Foresight 2020</i> .	Community and technical colleges must also include three indicators specific to the institution which support <i>Foresight 2020</i> or institution-specific indicators, one of which measures a non-college ready student population.

<sup>2</sup> e.g. the National Community College Benchmarking Project and/or Noel-Levitz Benchmarking Surveys.

<sup>3</sup> As provided by the Kansas Department of Labor.

<sup>4</sup> For all institution-specific indicators involving students, institutions may disaggregate by sub-population (i.e. underrepresented populations, underprepared students, etc.). Institutions may disaggregate other institution-specific indicators, as appropriate.

Fort Hays State University Performance Report AY 2019							AY 2019 FTE: 10,376	
Contact Person: Sangki Min		Phone and email: 785.628.4540, s_min2@fhsu.edu					Date: 6/1/2020	
Fort Hays State University	Foresight Goals	3 yr History	AY 2017 (Summer 2016, Fall 2016, Spring 2017)		AY 2018 (Summer 2017, Fall 2017, Spring 2018)		AY 2019 (Summer 2018, Fall 2018, Spring 2019)	
			Institutional Performance	Outcome	Institutional Performance	Outcome	Institutional Performance	Outcome
1. Increase first to second year retention rates	1	Fall 12 Cohort: 65.4% (621/949) Fall 13 Cohort: 67.2% (659/981) Fall 14 Cohort: 68.6% (669/975) Baseline: 67.1% (1,949/2,905)	71.1% (662/931)	↑	73.3% (716/977)	↑	75.2% (718/955)	↑
2. Increase number of degrees awarded	1	AY2013: 3,340 AY2014: 3,252 AY2015: 3,208 Baseline: 3,267	3,419	↑	3,874	↑	3,796	↑
3. Increase percent of online degree programs for which FHSU ranks higher in USNWR as compared to KBOR peers	3	AY2013: 92.5% (37/40) AY2014: 95.0% (38/40) AY2015: 95.0% (38/40) Baseline: 94.2% (113/120)	95.0% (38/40)	↑	95.0% (38/40)	↑	85.0% (34/40)	↓
4. Increase number of students (age 25 and above) enrolled	1	AY2013: 5,084 AY2014: 5,468 AY2015: 5,836 Baseline: 5,463	6,073	↑	6,136	↑	5,935	↑
5. Increase number of degrees awarded in STEM fields	2	AY2013: 451 AY2014: 447 AY2015: 443 Baseline: 447	567	↑	540	↑	541	↑
6. Increase SCH completed through distance education	2	AY2013: 129,686 AY2014: 135,172 AY2015: 144,900 Baseline: 136,586	166,669	↑	175,713	↑	182,062	↑

## Fort Hays State University Performance Report AY 2019

### **Indicator 1: Increase first to second year retention rates**

**Description:** This indicator is the 20th day fall-to-fall retention percentage of first-time, full-time, degree seeking freshman students. This indicator was selected because it is a KBOR Foresight 2020 goal and because institutionally we have lagged peers on this metric.

**Outcome/Results:** Our performance on this indicator shows a continuous improvement over the last several years. This steady increase can be attributed to a more strategic focus on how we recruit, admit, and transition Freshmen in the first year. FHSU has taken substantive actions to solidify our focus on the first-year transition of Freshmen. The First-Year Experience Program helps Freshmen with transition events. Our Learning Community approach has completed its tenth academic year with positive results for these Freshmen. The Learning Community has grown over the years and most recently from 13 communities for Fall 2016 to 18 for Fall 2019. The University has also implemented an early alert system (Starfish) designed to flag students when their work falls below the established standard for attendance, performance, or participation in online or on-campus classes. FHSU has completed a three-year project entitled "Re-Imagining the First Year." We will continue the strategies from the project including, but not limited to: implementing co-requisite remediation for high DFWI courses, improved diagnostic assessments, policy audits, incentives for faculty to improve first-year instruction, Predictive Analytics Reporting (PAR) - student-success intervention measurement tool, and the learning communities for the second year students.

### **Indicator 2: Increase number of degrees awarded**

**Description:** This indicator is a count of the number of degrees awarded during an academic year, including, undergraduate (Associates and Bachelors) and graduate (Masters and Education Specialists) degrees. One unmistakable focus of Foresight 2020 is the concerted push to matriculate a larger number Kansans through quality workforce-focused programs. At FHSU, a great number of graduates come from in-demand programs with immediate workforce application (i.e., teacher education, nursing, business, information networking, and justice studies). Student completion through the Virtual College continues as a top strategic focus for the institution.

**Outcome/Results:** The number of degrees awarded is slightly down from the last year, but still considerably higher than the baseline. The University expanded Student Engagement and Advising Center to focus on student retention and graduation. FHSU has also added process improvements for enrollment and program completion to serve international students better.

### **Indicator 3: Increase percent of online degree programs for which FHSU ranks higher by USNWR as compared to KBOR approved peers**

**Description:** This indicator is a comparison of online FHSU degrees ranked by US News and World Report compared to the KBOR approved peer list (Eastern Washington Univ, Northwest Missouri State Univ, Northeastern State Univ (OK), Univ of Central Missouri, Univ of Nebraska-Kearney, Southeast Missouri State Univ, Troy Univ, Colorado Mesa Univ, Tarleton State Univ, and Morehead State Univ). Specifically, this indicator is the percent of degree programs FHSU ranks above in the USNWR ranking of online degree programs across all four areas (online graduate education programs, online graduate nursing programs, online graduate business programs, and online bachelors programs). With our history of success operating distance education programs, this ranking system represents a quality indicator which is well aligned to our strategic niche. While the USNWR ranking of online degree programs is of recent origin, there has been good thought put into the criteria that manufacture the comparisons. The combination of access/quality criteria elevates the USNWR rankings above competitors like GetEducated.com that tend to weight access and affordability over other indicators.

**Outcome/Results:** The indicator this year decreased to 34/40 (85%). We finished 4th among our peers on MBA and 2<sup>nd</sup> in Education, Nursing, and online Bachelor's categories this year. FHSU will review the methodology of these ranking systems and look for ways to improve our program delivery for higher ranking. FHSU will strengthen several high quality, low-cost Bachelor's degree programs. These programs provide rich academic offerings in an online delivery

mode specifically designed for adult learners. FHSU provides comprehensive learner support that includes personalized professional advising, free online tutoring, excellent library services, bookstore, financial aid programs, military support services, and more.

**Indicator 4: Increase number of students (age 25 and above) enrolled**

**Description:** This indicator is a count of the number of students age 25 and above enrolled at FHSU on the 20<sup>th</sup> day fall semester. FHSU has long been a favorite institution for non-traditional adult learners, and our success in distance education is largely directed toward this demographic. As foresight 2020 intimates, this is a critical demographic to target due to their immediate connection to the existing workforce – this demographic is likely getting credentialed to improve their position with the workforce.

**Outcome/Results:** FHSU has added several process improvements to serve adult learners better, including our recently expanded Student Engagement and Advising Center and expansion of the number of workforce-focused degree programs available online. We strategically add and expand high demand programs. We increase outreach efforts to recruit adult students. We also recently approved a new CPL (Credit for Prior Learning) course and processes.

**Indicator 5: Increase number of degrees awarded in STEM fields**

**Description:** This indicator is an AY count of the number of degrees awarded in STEM fields (coded by particular CIPs). Historically, the University has positioned itself in the undergraduate STEM arena through our successful Kansas Academy of Mathematics and Science (developed as the state-wide academy for top-performing high school juniors and seniors) and our strong programs in the sciences and technology. The University continues to improve our undergraduate programming in these areas, and expand our technology programs through distance education, when possible. Completion of STEM programs is a challenge nationally, but FHSU closely monitors student achievement in these areas through personalized advising and partnerships with industry to facilitate rapid student placement upon graduation.

**Outcome/Results:** FHSU will continue to implement the three initiatives. First, FHSU is the designated institution for the Kansas Academy of Mathematics and Science (KAMS) program and now serves over 80 high school students. Their curriculum is tightly focused on science and mathematics. Many KAMS graduates stay at FHSU to complete degrees in science-related areas. Second, FHSU has been an active participant in STEM initiatives at the undergraduate level. Nearly all of our STEM graduates participated in undergraduate research projects. Finally, FHSU has a successful Information Networking and Information Assurance degree program. The College of Science, Technology, and Mathematics is currently growing a student base.

**Indicator 6: Increase SCH completed through distance education**

**Description:** This indicator is an FY count of the number of credit hours successfully completed through our Virtual College. This indicator signifies our strategic commitment to distance learners. Specifically, this indicator looks only at the number of credit hours completed with a passing grade.

**Outcome/Results:** FHSU continues to make great advances in distance education. Moving this indicator was possible through a comprehensive online course development process, which assures adherence to high levels of academic quality in the virtual environment.

Pittsburg State University Performance Report AY 2019							AY 2019 FTE: 6,235	
Contact Person: Howard Smith, Provost & VPAA		Phone and email: 620.235.4113, hwsmith@pittstate.edu					Date: 6/11/2020	
Pittsburg State University	Foresight Goals	3 yr History	AY 2017 (Summer 2016, Fall 2016, Spring 2017)		AY 2018 (Summer 2017, Fall 2017, Spring 2018)		AY 2019 (Summer 2018, Fall 2018, Spring 2019)	
			Institutional Performance	Outcome	Institutional Performance	Outcome	Institutional Performance	Outcome
1 Increase First to Second Year Retention Rates	1	Fall 12 Cohort = 800/1,076=74.3% Fall 13 Cohort = 816/1,128=72.3% Fall 14 Cohort = 777/1,043=74.5% Baseline: 2,393/3,247 = 73.7%	73.7% (742/1,007)	↔	75.1% (740/986)	↑	73.7% (705/957)	↔
2 Increase Success in Student Learning: General Education Math Index	2	AY 2013 = 2.2186/3 = 73.95% AY 2014 = 2.2789/3 = 75.96% AY 2015 = 2.2349/3 = 74.49% Baseline: 74.80%	70.31% (2.1094/3)	↓	71.93% (2.1578/3)	↓	68.6% (2.0580/3)	↓
3 Maintain or Improve Ranking on Quality Measures (retention, graduation, research expenditures and faculty qualifications) among Peers	3	AY 2013 = (3+1+2+1)/4=1.8 AY 2014 = (2+2+1+2)/4=1.8 AY 2015 = (2+3+1+1)/4=1.8 Baseline: 1.8	1.5 (1+3+1+1)/4	↑	2.0 (1+3+2+2)/4	↓	2.3* (3+2+2)/3	↓
4 Increase Credit Hours Completed through Distance Education	1	AY 2014 = 18,493 AY 2015 = 21,495 AY 2016 = 22,234 Baseline: 20,741	28,086	↑	30,484	↑	38,066.5	↑
5 Increase Number of Bachelor's Degrees Granted to Domestic Minorities	1	AY 2013 = 113 (of 1,051) AY 2014 = 127 (of 1,136) AY 2015 = 153 (of 1,218) Baseline: 131	158 (of 1,231)	↑	157 (of 1,182)	↑	160 (of 1,125)	↑
6 Increase Amount of Scholarship Funds Raised	3	AY 2013 = \$1,800,098 AY 2014 = \$2,232,575 AY 2015 = \$2,149,830 Baseline: \$2,060,834	\$3,638,791	↑	\$5,574,431	↑	\$6,581,115	↑

\*The data for the ranking for research and development expenditures is not available at this time, so only three rankings are being used for this calculation for AY 2019.

## Pittsburg State University Performance Report AY 2019

### **Indicator 1: Increase First to Second Year Retention Rates**

**Description:** An ongoing indicator in our performance agreements has been first to second year retention. The retention rate is calculated by determining the number of full-time, first-time bachelor's (or equivalent) degree-seeking undergraduate students who were enrolled on the 20th day of a fall semester who returned and were enrolled on the 20th day of the next fall semester (e.g., fall 2016 to fall 2017). PSU has been and continues to be a predominantly residential campus that enrolls a significant number of traditional aged, direct from high school students. We include this indicator because both nationally and at PSU, approximately half of new first-year students who do not graduate from the institution leave during or after their first year. PSU is currently in the process of using results from a recent extensive analysis of student retention data and student survey results to develop a comprehensive plan to increase student retention, initially targeting freshmen success and first to second year retention rates.

**Outcome/Results:** Performance equal to the baseline was achieved in AY19 through an emphasis on proactive initiatives to broadly address improving student success, as well as targeted efforts to identify students who are experiencing academic challenges and then providing on-time direct assistance and referrals to identified students. A first-year experience course, peer mentoring for first-year students, learning communities in multiple areas (Biology, Communication, Geography, and new in fall 2018 all majors in the College of Business), tutoring for challenging first-year courses, and academic skills workshops are examples of PSU's proactive approach. Use of a retention management system allows instructors to provide an early alert with follow-up resources for students not meeting their academic or attendance expectations in the first three to eight weeks of the term.

### **Indicator 2: Increase Success in Student Learning: General Education Math Index**

**Description:** PSU will track level of success in meeting our math general education student learning objective: *Demonstrate the ability to formulate and solve problems using the tools of mathematics*. Because math general education courses tend to have a higher rate of withdrawal and incompletes compared to many other general education courses, this index measures the two primary variables for student achievement in general education math courses, specifically, completion of the course with a passing grade and scoring at the Meets or Exceeds Expectations level on the department's standing assessment rubric. The index is calculated as a percentage of the passing rate in general education math courses combined with the mean rubric score. The math rubric was developed in 2012 by a campus-wide task force. In addition, rate of drops, failing grades, withdrawals, and incompletes, (DFWIs) in required general education courses is one of the strongest predictors of degree completion at PSU. Math is targeted initially as it has one of the highest student enrollments along with one of the lowest rates of success of all general education courses at PSU.

**Outcome/Results:** AY19 scores on the PSU math rubric were based only on artifacts collected from College Algebra, as courses submitting assessment data are following a cyclical pattern of documentation. College Algebra has consistently attained lower scores than the other two courses where this indicator is assessed. It is worth noting AY19 figures are considerably higher than the last year in which the index was based solely on data collected from College Algebra in AY16, even though current scores are lower than baseline. Specific strategies to improve student performance include: an "Early and Often" communication system using email to reach every student with a series of personalized messages; course-specific tutoring using graduate teaching assistants; and assigning more tutoring hours during the weeks leading up to major exams. PSU has formally invested increased attention and resources to addressing challenges in math and other select general education courses by focusing on student success in gateway courses for its HLC Quality Initiative, effective Fall 2019.

### **Indicator 3: Maintain or Improve Ranking on Quality Measures (retention, graduation, research expenditures and faculty qualifications) among Peers**

**Description:** To determine relative rank among five peers (those institutions considered to be comparable in enrollment, location, resources, student profile, etc.), four variables generally accepted as measures of institutional quality were identified, data were compiled from reputable, external sources (e.g., IPEDS, NSF), and the institutions were ranked on each variable. An average rank was then computed to establish the baseline. The four quality measures are: first to second year retention, six-year graduation rate, percentage of full-time faculty with terminal degrees and research expenditures. Responding to a charge from the Kansas Board of Regents, the University has gone through a thoughtful, data informed process to develop sets of both peer and aspirant institutions by which to benchmark progress on a number of quality measures.

**Outcome/Results:** PSU showed a decline in overall ranking compared to peer institutions. A major contributing factor is a change in reporting at the national level. PSU has consistently ranked first in research and development expenditures over the duration of the performance agreement, but comparative data are no longer available. PSU showed relative improvement in six-year graduation rate of first-time, full-time cohort, moving from a ranking of third to second. PSU continues to rank second in percentage of faculty with terminal degrees. This is below the baseline ranking in this area, resulting from a deliberate decision to hire more part-time faculty as a strategy to address continued financial pressures. For fall-to-fall retention rate of full-time first-time cohort, PSU fell from second to third ranking compared to peer institutions. It is noted this drop is due to relative increases at two peer institutions rather than any actual decrease in PSU's retention rate.

#### **Indicator 4: Increase Credit Hours Completed through Distance Education**

**Description:** This indicator assesses growth in distance education opportunities for students by tracking semester credit hours completed through online courses. Using the credit hour metric will allow us to account for expansion of both individual course offerings and degree programs. Providing greater opportunity for online learning is important to address the needs of students whose circumstances do not allow them to attend classes at a physical location or who find online courses their preferred way of learning. It is widely understood that PSU must become more aggressive in the highly competitive online environment. Resources have been allocated and strategies developed to support expansion of online offerings. Faculty professional development and training in online instruction is at the core of this initiative.

**Outcome/Results:** This indicator showed the largest annual increase to date, and is now approaching double the baseline number. The primary strategy for increasing number of distance education credits has been significant expansion of online programs. The following programs were offered in an online format for the first time in AY19: DNP Nursing (MSN to DNP); Hospitality Management certificate; MBA - International Dual Degree; MBA Human Resource Development; MA Teaching - Elementary Education K-6; MA Teaching - Special Education High Incidence; Building Principal certificate; and Communication certificate. PSU continues to train faculty through its eLearning Academy that incorporates Quality Matters (QM), a national, faculty-centered, peer review process designed to certify the quality of online courses and online components. During AY19, an additional 13 faculty completed QM training.

#### **Indicator 5: Increase Number of Bachelor's Degrees Granted to Domestic Minorities**

**Description:** This indicator tracks increases in the number of degrees awarded to domestic minority students, whether students started at PSU or matriculated at another institution and transferred to us. In recent performance agreements, our focus has been on access as measured by increases in applications and headcount enrollment of domestic minorities. Our enrollment has increased significantly as we strive to mirror the demographic profile of the state. Though we will continue outreach efforts to attract more domestic minority students to the University, this indicator shifts the focus to student success and completion, a logical next step.

**Outcome/Results:** Number of bachelor's degrees granted to domestic minorities was well above the established baseline and increased slightly from the previous year. Success initiatives continue to be centered on collaborative efforts among faculty advisors along with support from staff within the Office of Student Diversity and the Office of Student Success Programs, and from the Tilford Group on campus. These efforts include: support and tools to navigate a campus environment and become involved in student organizations; excellent academic advisement supported by annual advisor training campus-wide inclusive activities to support academic success, such as Diversity Brown Bags; mentoring activities from upperclassmen; and academic skills workshops.

#### **Indicator 6: Increase Amount of Scholarship Funds Raised**

**Description:** This indicator will track success in fundraising for student scholarships. The specific metric is cash gifts (i.e. planned gifts are not included) raised in the fiscal year, which corresponds closely to the academic year. As state support has diminished and tuition has increased to fill the funding gap, an additional financial burden has fallen on students and their families. A three-year scholarship campaign, Pathways to PSU, concluded on June 30, 2014. The campaign goal was to raise \$12 million for new scholarships; the total raised was \$13.1 million. The current capital campaign, Proven.Promise.PittState., also has a scholarship component; to raise an additional \$8 million for scholarships through FY18.

**Outcome/Results:** Amount of scholarship funds raised showed directional improvement, with a very impressive increase of \$4.52 million over baseline. The amount listed does not include an additional \$592,000 documented in FY19 that are designated in planned gifts for scholarships to be realized in the future. The capital campaign, Proven.Promise.PittState., had a scholarship component to raise an additional \$8 million for scholarships through FY18. That goal was realized, and the campaign extended through FY21, with a goal of \$10 million raised for scholarships.

# Washburn University Performance Report AY 2019

AY 2019 FTE: 4,994 – Washburn

AY 2019 FTE: 1,270 – Washburn Tech

Contact Person: JuliAnn Mazachek

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Date: 7/22/2020

Washburn University	Foresight Goals	3 yr History	AY 2017 (Summer 2016, Fall 2016, Spring 2017)		AY 2018 (Summer 2017, Fall 2017, Spring 2018)		AY 2019 (Summer 2018, Fall 2018, Spring 2019)	
			Institutional Performance	Outcome	Institutional Performance	Outcome	Institutional Performance	Outcome
1 Increase first to second year retention rates of first time full-time freshmen (Washburn University).	1	Fall 12 Cohort: 517/803 = 64.3% Fall 13 Cohort: 509/779 = 65.3% Fall 14 Cohort: 514/753 = 68.3% Baseline: 65.9% (1,540/2,335)	71.8% (610/849)	↑	70.1% (574/819)	↑	68.9% (501/727)	↑
2 Increase the number of Certificates and Degrees awarded (Washburn University/Washburn Tech).	1	AY 2013: 2,319 AY 2014: 2,583 AY 2015: 2,431 Baseline: 2,444	2,590	↑	2,496	↑	2,673	↑
3 Increase the ranking among the state public universities as measured by the endowment per FTE student.	3	2012: Rank 2 2013: Rank 2 2014: Rank 2 Baseline: Rank 2	Rank 2	↔	Rank 2	↔	Rank 2	↔
4 Increase the percentage of online student credit hours completed at Washburn University out of the total student credit hours completed annually.	2	FY13: 27,329/162,754 = 16.8% FY14: 26,386/155,304 = 17.0% FY15: 26,051/149,024 = 17.5% *Baseline: 79,766/467,082 = 17.1%	19.6% (28,908/147,227)	↑	20.3% (30,223/148,605)	↑	22.1% (32,047/145,258)	↑
5 Increase the number of undergraduate Kansas resident degree-seeking adult student learners (25-64) at Washburn University.	1	FY13: 2,152 FY14: 1,940 FY15: 1,722 Baseline: 1,938	1,466	↓	1,432	↓	1,177	↓
6 Increase the number of industry-recognized technical credentials, including WorkKeys. (Washburn Tech)	2	AY 2013: 1,071 AY 2014: 1,909 AY 2015: 1,986 Baseline: 1,655	1,179	↓	1,896	↑	1,994	↑
7 Increase the number of students completing a General Education Diploma (GED). (Washburn Tech)	1	FY 2013: 46 FY 2014: 41 FY 2015: 40 Baseline: 42	129	↑	130	↑	79	↑

\*Updated 7/17/2018

## Washburn University Performance Report AY 2019

### **Indicator 1: Increase first to second year retention rates of first time full-time freshmen (Washburn University/Washburn Tech).**

**Description:** Washburn University/Washburn Tech have implemented new initiatives to assist in increasing the first to second year retention rate. The data regarding full-time first-time freshmen is provided to KBOR annually as a subset of our fall census data.

**Outcome/Results:** Washburn's retention rate increased to 68.9% which, although slightly lower than FY18, is well over the baseline of 65.9%. The university has made a concerted retention effort by expanding the Center for Student Success and Retention, developing a robust first-year experience program, and refining the college experience course required of all first time full- time freshmen. We have also become more adept using technology after implementing the EAB Student Success Collaborative software system which generates a data rich environment allowing us to focus our efforts on identified at risk students.

### **Indicator 2: Increase the number of Certificates and Degrees awarded (Washburn University/Washburn Tech).**

**Description:** Washburn is committed to increasing the number of students receiving certificates and degrees at the university in support of KBOR's strategic goal to increase higher education attainment among Kansas citizens. The data regarding the number of certificates and degrees awarded is provided to the Kansas Board of Regents annually in our academic year KSPSD file submission.

**Outcome/Results:** Washburn University/Washburn Tech academic year degrees and certificates awarded totaled 2,673 in AY2019, up from the three-year baseline average of 2,444. This increase can be attributed in large part to bigger first year classes going through the pipeline.

### **Indicator 3: Increase ranking among the state public universities as measured by the endowment per FTE student.**

**Description:** The additional revenue provided by loyal alumni will enable Washburn University to maintain the high quality of our curricular and co-curricular programs in the coming years. Endowment per student FTE is collected from institutions participating in the annual NACUBO/Commonfund Endowment Study. Our goal is to continue to maintain or increase our ranking.

**Outcome/Results:** Washburn University maintained its ranking of second in the state of Kansas. The list that follows indicates the dollars of endowment per FTE student and Washburn's corresponding rank among all public institutions. The values have been generally trending upward, while the ranking has remained relatively stable as we continue to raise funds each year. *FY19 \$32,930 41<sup>st</sup>, FY18 \$31,077 Unknown, FY17 \$31,131 43<sup>rd</sup>, FY16 \$28,356 48<sup>th</sup>, FY15 \$30,353 44<sup>th</sup>*

### **Indicator 4: Increase the percentage of online student credit hours completed at Washburn University out of the total student credit hours completed annually.**

**Description:** Washburn is attempting to meet the needs of place bound and working students by offering online courses in order to complete degrees and certificates which will assist them in moving forward their career goals. Online courses are defined as courses delivered over distance and have been given an identifying code. The student credit hours in online courses as well as the total student credit hours are compiled and summed for the academic year (summer, spring, and fall semesters.)

**Outcome/Results:** Washburn University exceeded the baseline target online course student credit hour percentage (17.1%) for AY2019 with 22.1% (32,047/145,258) online student credit hours awarded. Washburn increased the number of online course sections being offered as well as the number of new online programs offered.

### **Indicator 5: Increase the number of undergraduate Kansas resident degree-seeking adult student learners (25-64) at Washburn University.**

**Description:** Washburn University is involved in a strategic initiative to increase the number of adult learners who are attending the university to continue their education in order to obtain academic credentials to assist them in pursuing their chosen professions. The non-duplicative baseline adult learner count for fall and spring enrollees who attended Washburn at any time during the academic year is collected by the office of Strategic Analysis and Reporting annually.

**Outcome/Results:** Although we did not achieve our baseline goal of 1,938, Washburn is actively working to identify the programs and formats, new or existing, that are most valuable to adult learners and then determining which of these programs and formats Washburn will offer and market to meet the educational needs of adult learners. An external research firm has been hired to conduct market research, and leadership from all units on campus met with the research team in January to strategize regarding adult learners. Unfortunately, the COVID-19 crisis and subsequent planning has taken the focus off this strategy for the moment.

**Indicator 6: Increase the number of industry-recognized technical credentials, including WorkKeys. (Washburn Tech)**

**Description:** Washburn Tech has worked closely with business/industry and KBOR to identify the relevant certifications in each of its programs. These certifications indicate to business and industry partners that our students have the knowledge and skills necessary to be successful when they are employed. This indicator will measure the number of students who receive industry-recognized credentials, either during or at the completion of their program of study. The data are collected from students and from official websites where the results are published.

**Outcome/Results:** For AY2019, instructors reported 2,286 industry credentials attempted with 1,994 industry credentials earned for a pass rate of 87.2%, exceeding the baseline (1,655). Enrollment growth explains the increase.

**Indicator 7: Increase the number of students completing a General Education Diploma (GED). (Washburn Tech)**

**Description:** Washburn Tech provides adult education and literacy services in order to assist adults to become literate and obtain knowledge and skills necessary for employment and self-sufficiency and assists adults in the completion of a secondary school education and the GED. Through the Accelerating Opportunity in Kansas (AOK) Program, qualifying students may co-enroll in a Career and Technical Education (CTE) program and the Adult Education and Literacy program simultaneously. Data is collected through the State of Kansas Adult Education database.

**Outcome/Results:** For AY2019, 79 students completed their GED through Washburn Tech. While substantially above our baseline (42), this number is below that of the last few years, due to an unusual amount of staff turnover and lower enrollments in the GED program this year.

<b>Garden City Community College Performance Report AY 2019</b>							AY 2019 FTE: 1,515	
<b>Contact: Ryan Ruda</b>			<b>Phone and email: 620-276-9597; ryan.ruda@gcccks.edu</b>				<b>Date: 7/20/2020</b>	
<b>Garden City Community College</b>	<b>Foresight Goals</b>	<b>3 yr History</b>	<b>AY 2017 (Summer 2016, Fall 2016, Spring 2017)</b>		<b>AY 2018 (Summer 2017, Fall 2017, Spring 2018)</b>		<b>AY 2019 (Summer 2018, Fall 2018, Spring 2019)</b>	
			<b>Institutional Performance</b>	<b>Outcome</b>	<b>Institutional Performance</b>	<b>Outcome</b>	<b>Institutional Performance</b>	<b>Outcome</b>
<b>1</b> Increase satisfactory completion of credit hours for past and current, active and honorably discharged veteran	1	13-14—489 14-15—377 15-16—85 Baseline--317	478	↑	434	↑	386	↑
<b>2</b> Increase Number of certificates and degrees awarded.	1	2013—488 2014—515 2015—504 Baseline-502	474	↓	552	↑	613	↑
<b>3</b> Increase the written communication skills of students as evidenced by institutional assessment.	2	2013-14—0 2014-15—8.78 2015-16—8.84 Baseline—8.81	8.83	↑	8.83	↑	8.30	↓
<b>4</b> Increase Percent of students who complete remedial English 091 with "C" or better and successfully complete college-level English 101 with "C" or better within 1 year.	1	2012-13—57/101 (56%) 2013-14—108/166 (65%) 2014-15—112/173 (65%) Baseline—277/440 (63%)	73.5% (136/185)	↑	63.8% (166/260)	↑	72.7% (133/183)	↑
<b>5</b> Increase satisfactory completion of credit hours in hybrid, distance and online courses	1	12-13—8,540 13-14—12,419 14-15—18,485 Baseline—13,148	20,567	↑	17,748	↑	16,651	↑
<b>6</b> Increase 3-year graduation rate for first-time, full-time, undergraduate degree-seeking, college ready student cohort.	1	Fall 10 Cohort—76/152 (50%) Fall 11 Cohort—96/232 (41.4%) Fall 12 Cohort—101/289 (34.9%) Baseline—273/673 (40.6%)	43.1% (93/216)	↑	46.2% (90/195)	↑	55.7% (280/503)	↑

## Garden City Community College Performance Report AY 2019

### **Indicator 1: Increase satisfactory completion of credit hours for past and current, active and honorably discharged veteran students**

**Description:** GCCC is recognized as a military friendly institution by G.I. Jobs. GCCC will increase successful completion of veteran students as measured by credit hours completed annually. Through increasing veteran student credit hour completion, the College will contribute to a more trained, more employable workforce for Kansas. It is the intent of GCCC to connect veterans to workforce training and education.

**Outcome/Results:** 386 credit hours were successfully completed by veteran students for AY 2019. The College's work to increase recruitment and retention of veteran students is ongoing. The 2019 academic year saw credit hour completion for veterans at 22% above the baseline.

### **Indicator 2: Increase number of certificates and degrees awarded.**

**Description:** This increase is based on the projected 3-year average over baseline, providing an accurate picture of our awarded degrees. The College will measure the number of degrees/certificates awarded. It is important for students to complete their academic journey with a credential, especially in the technical and workforce programs where many of the credentials are industry-recognized and may be a terminal degree for particular professions. We desire to increase credential generation to provide a better chance of success in the workplace and for transfer to other postsecondary institutions as well as addressing the goal identified within Foresight 2020.

**Outcome/Results:** 613 degrees and certificates were awarded for AY 2019. This number is 22% above the baseline and represents an 11% increase in credential production over AY 2018.

### **Indicator 3: Increase the written communication skills of students as evidenced by institutional assessment.**

**Description:** In 2014-15, GCCC began using a new internal tool to assess student skills, including written communication skills. The tool used a 4-point Likert scale with 12 total points possible on the rubric. It is this scale that the College's performance agreement benchmarks and previous data reporting is based. Beginning in academic year 2019, however, GCCC adopted the VALUES Rubrics for assessing student learning, which use a 21.25-point total scale. VALUES Rubrics are a nationally-normed tool, allowing the College to benchmark its scores with institutions around the nation, providing more robust conversations around continuous improvement. Because GCCC's baseline scores and previous performance agreement reporting is based on a 12-point scale, we have used a simple conversion to equate the results for AY 2019 to the 12-point scale.

**Outcome/Results:** The written communication rubric is now based on a 21.25-point scale. The written communication score for academic year 2019 was 14.69 out of 21.25, which equates to 8.30 out of 12. This number below the baseline is likely the result of the mathematical conversion from one scale to another rather than a true dip in student performance.

### **Indicator 4: Increase percent of students who complete remedial English 091 with a "C" or better and successfully complete college-level English 101 with a "C" or better within 1 year.**

**Description:** Garden City Community College will increase the percent of non-college ready students successfully completing college-level classes, and provide opportunity for academic success. The denominator in the calculation is the number of students who are enrolled in English 101 at certification date and who completed remedial English 091 with a final grade of "C" or higher. The numerator represents those students in the denominator who then successfully complete first college level English with a final grade of "C" or higher. This indicator was chosen in alignment with Foresight 2020, representing our commitment to underprepared students.

**Outcome/Results:** 72.7% of students who completed remedial English 091 with a “C” or better successfully completed college-level English 101 with a “C” or better within one year for academic year 2019. This is 9.7% above the baseline and approximately 9% higher than the previous year.

**Indicator 5: Increase satisfactory completion of credit hours in hybrid, distance and online courses.**

**Description:** GCCC will increase the number of students completing credit hours through distance education modality with a grade of “C” or better. Distance education is comprised of hybrid and distance education offerings. GCCC has transitioned to a new Learning Management System, Canvas, which will allow greater flexibility for student engagement in courses and programs offered through distance education. By increasing completion, this indicator will specifically address the opportunities available to students through GCCC and provide evidence of quality instruction and services available through distance modality.

**Outcome/Results:** 16,651 credit hours in hybrid and online courses were successfully completed for AY 2019. This is 27% above the baseline. In previous years, a majority of courses were delivered in a hybrid format, a format the College fully transitioned away from starting Fall 2019. The College continues to see an overall decrease in this indicator due to the transition back to more face-to-face instructional delivery.

**Indicator 6: Increase 3-year graduation rate for first-time, full-time, undergraduate, degree-seeking, college ready student cohort.**

**Description:** GCCC will increase the percent of students who graduate within 150% (3 years) of time from initial enrollment, utilizing the 3-year graduation rate as calculated by KBOR/KHEDS. Students will be advised to commit to a program of study and develop an educational plan with educational goals. Research shows that students who “know what they want” will have increased chances for completion of a certificate or associate degree.

**Outcome/Results:** 55.7% three-year graduation rate for AY 2019. During the past three years, the college has continued its work of defining and refining program pathways to effectively and efficiently advise students into a course of study with a clear academic plan. These efforts, along with early alerts, student tracking, and monitoring using products such as Dropout Detective have helped improve students’ opportunities for successful completion. This result is 15% above the baseline and 9.50% above the previous year.

**Johnson County Community College Performance Report AY 2019** AY 2019 FTE: 10,624

Contact Person: Michael McCloud Phone and email: 913-469-8500 x2527; mccloud@jccc.edu Date: 7/1/2020

Johnson County Community	Foresight Goals	3 yr History	AY 2017 (Summer 2016, Fall 2016, Spring 2017)		AY 2018 (Summer 2017, Fall 2017, Spring 2018)		AY 2019 (Summer 2018, Fall 2018, Spring 2019)	
			Institutional Performance	Outcome	Institutional Performance	Outcome	Institutional Performance	Outcome
<b>1</b> Increase Student Success: Success rate after three years reported for each cohort.	1	AY 2010: 2,058/4,130 49.8% AY 2011: 2,098/4,275 49.1% AY 2012: 2,015/4,136 48.7% Baseline: 6,171 /12,541 49.2%	51.5% (1,815/3,527)**	↑	54.4% (2,884/5,298)	↑	55.2% (2,782/5,044)	↑
<b>2</b> Increase the Number of Certificates and Degrees Awarded (based on awards recognized by KBOR – SAPP or 16+ credit hours)	1	AY 2013: 2,685 AY 2014: 2,934 AY 2015: 3,286 Baseline: 2,968	3,027	↑	3,066	↑	3,359	↑
<b>3</b> Increase the Percent of graduates employed or transferred in KS one year after graduation	2	AY 2012: 1,195/2,371 50.4% AY 2013: 1,235/2,335 52.9% *AY 2014: 1,322/2,548 51.9% *Baseline: 3,752/7,254 51.7%	52.9% (1,345/2,542)	↑	55.4% (1,360/2,455)	↑	53.7% (1,361/2,533)	↑
<b>4</b> Increase First to second year retention rates of first-time, degree-seeking, non-college ready student population	1	Fall 12 Cohort: 606/1,195 50.7% Fall 13 Cohort: 617/1,128 54.7% Fall 14 Cohort: 667/1,192 55.9% Baseline: 1,890/3,515 53.8%	Fall 16 Cohort: 58.5% (753/1,287)	↑	Fall 17 Cohort: 55.1% (721/1,308)	↑	Fall 18 Cohort 57.2% (730/1,276)	↑
<b>5</b> Increase First to second year retention rates of first-time, full-time college ready student population	1	Fall 12 Cohort: 304/523 58.1% Fall 13 Cohort: 411/620 66.3% Fall 14 Cohort: 443/663 66.8% Baseline: 1,158/1,806 64.1%	Fall 16 Cohort: 70.9% (471/664)	↑	Fall 17 Cohort: 68.4% (464/678)	↑	Fall 18 Cohort 71.1% (431/606)	↑
<b>6</b> Increase Three-year graduation & transfer rates of first-time, full-time, degree-seeking students	1	Fall 10 Cohort: 674/1,622 41.5% Fall 11 Cohort: 618/1,467 42.1% Fall 12 Cohort: 547/1,374 39.8% Baseline: 1,839/4,463 41.2%	Fall 14 Cohort: 41.5% (631/1,520)	↑	Fall 15 Cohort: 46.1% (666/1,446)	↑	Fall 16 Cohort 47.7% (733/1,536)	↑
*Updated 4/20/2018			**Updated 6/14/2019					

# Johnson County Community College Performance Report AY 2019

## **Indicator 1: Increase Student Success**

**Description:** The Student Success Index, as reported using data from the Kansas Higher Education Data System (KHEDS), provides the success rates as of year three of each cohort enrolling at Johnson County Community College (JCCC). The Student Success Index includes the following in defining success: all students who were retained or completed a degree or certificate at JCCC, or who completed or were retained at a Kansas or other out-of-state higher education institution. The success rate is calculated at the end of year three of each cohort and an overall success rate is reported.

**Outcome/Results:** In the new 2017-2020 Strategic Plan, the College continues to value student success as an institutional priority and is continuing work to implement a student success model that will provide a personalized pathway for each student and strengthen the student's engagement with JCCC. The College has implemented AccuCampus, a student engagement tool, to help track student participation with campus activities and offices. Data collected from the tool feeds analytics to help provide students with an "Informed Choice" model to make personalized suggestions to individual students to improve the likelihood of success. Better connection with students along their journey has helped to increase outcomes.

## **Indicator 2: Increase the Number of Certificates & Degrees Awarded**

**Description:** The total number of awards as captured by the Kansas Higher Education Data System (KHEDS). Numbers reported herein do not include certificates awarded in programs comprised of less than 16 credit hours.

**Outcome/Results:** Indicator 2 shows positive outcome compared to the baseline. In an effort to clear the academic path to many of the credentials we offer, JCCC has worked to streamline course offerings over the past two academic years to avoid duplications of skills and outcomes that might lead to extended time to degree. Additional efforts to support student completions include progress with reverse transfer and auto-graduation for students who have completed program requirements but not applied for graduation. Efforts to increase student success – course completion and retention positively impact the number of awards.

## **Indicator 3: Increase the Percent of Students Employed or Transferred**

**Description:** Percent of students employed or transferred is defined as the percent of graduates who transferred to another institution or were employed in Kansas within one year after graduation.

**Outcome/Results:** Indicator 3 remained above the baseline. Overall the economy was doing well in AY 2019. This positively impacts employment rates within Indicator 3. The Career Development Center increased its offerings to support JCCC students' pursuit of employment. Interactive tools for students have been developed to provide easier access to job advertisements, interviewing skills, and resume tools.

## **Indicator 4: Increase First to Second Year Retention Rates of Non-College Ready Student Population**

**Description:** First to second year retention of non-college ready cohort as reported by JCCC's Office of Institutional Research is defined as first-time, degree-seeking students attending JCCC in the fall semester who enrolled in at least one developmental course in the initial academic year, and the percent who graduated or retained in the following fall semester.

**Outcome/Results:** Indicator is up compared to the baseline. The College continues to develop a strategy to improve overall student retention. Additionally, there is work being done related to JCCC Pathways (Indicator 1). Efforts have been made to ensure degree-seeking students take entrance exams or report appropriate scores on industry recognized assessments so that they are placed in the classes that will support their current educational level. The goal is to provide non-college

ready students with the educational opportunities needed to achieve college readiness. Newly developed Student Advocate positions are designed to help students better connect with existing resources at the College. Non-college ready students, in particular, benefit from direct support connecting them to JCCC resources.

**Indicator 5: Increase First to Second Year Retention Rates of College Ready Student Population**

**Description:** First to second year retention of college ready cohort as reported by KHEDS is defined as first-time, full-time, degree seeking students who are enrolled at JCCC for two consecutive fall terms and were not enrolled in any developmental courses in the initial term.

**Outcome/Results:** Indicator 5 is up compared to the baseline. The strategy for this indicator aligns with efforts pursued to improve Indicators 1 and 4. Additionally, in academic year 2019, JCCC continued to expand the number and diversity of online offerings in an effort to increase flexibility in student schedules. Wait-listing was introduced in 2018, providing assistance to scheduling as well. As mentioned in Indicator 1, the Student Success and Engagement division continues to focus on improving the overall student experience with focus on the development of JCCC Pathways for students. JCCC Pathways encourage the institution to be more intentional in our efforts to support student success.

**Indicator 6: Increase Three-Year Graduation and Transfer Rates of First-Time, Full-Time, Degree-Seeking Students**

**Description:** Three-year graduation and transfer rates report on the cohorts of first-time, full-time, degree-seeking students. The rate includes students who entered in the fall term as a first-time full-time degree-seeking student and of those who graduated from JCCC or transferred to another institution within 150% time of their expected degree or certificate completion time as reported by JCCC's Office of Institutional Research, and following the definitions used by the National Center for Educational Statistics – IPEDS data submissions. Transfer data are collected by submitting each fall term cohort through the Student Clearinghouse to identify enrollment at other post-secondary institution. Graduation rates are calculated by the degree/certificate being conferred within 150% time.

**Outcome/Results:** Indicator increased from the baseline. JCCC is optimistic that the work being done through the Strategic Plan and Key Performance Indicators will continue to have a positive impact on future graduation rate reports. Strategies for this indicator align with our retention efforts referenced in indicators 1, 2, 4 and 5, and include efforts to increase JCCC's overall graduation rates. Additionally, the increase in articulated courses across Kansas institutions has assisted with a more seamless transfer for students.

**Kansas City Kansas Community College Performance Report AY 2019** AY 2019 FTE: 3,659

Contact Person: Jerry Pope Phone and email: 913-288-7100; jpope@kckcc.edu Date: 6/30/2020

Kansas City Kansas Community College	Foresight Goals	3 yr History	AY 2017 (Summer 2016, Fall 2016, Spring 2017)		AY 2018 (Summer 2017, Fall 2017, Spring 2018)		AY 2019 (Summer 2018, Fall 2018, Spring 2019)	
			Institutional Performance	Outcome	Institutional Performance	Outcome	Institutional Performance	Outcome
<b>1</b> Increase the First to Second Year Retention Rate of First time Full time College Ready students	1	Fall 12 Cohort: 47.1% (154/327) Fall 13 Cohort: 55.3% (167/302) Fall 14 Cohort: 52.4% (161/307) Baseline: 51.5% (482/936)	65.0% (204/314)	↑	62.1% (226/364)	↑	62.5% (227/363)	↑
<b>2</b> Increase the Number of Certificates and Degrees Awarded	1	AY2013: 1,270 AY2014: 1,217 AY2015: 1,324 Baseline: 1,270	1,243	↓	1,267	↓	1,288	↑
<b>3</b> Increase the Percent of Students Employed or Transferred	2	2012: 53.1% (725/1,365) 2013: 55.2% (694/1,257) *2014: 56.4% (677/1,201) *Baseline: 54.8% (2,096/3,823)	56.6% (697/1,232)	↑	56.5% (691/1,223)	↑	56.3% (706/1,253)	↑
<b>4</b> Increase the success rate in non-dev courses enrolled by students who were successful in dev courses		AY2013: 65.6% (1,534/2,337) AY2014: 66.7% (1,544/2,314) AY2015: 68.9% (1,301/1,888) Baseline: 66.9% (4,379/6,539)	68.9% (1,329/1,930)	↑	67.8% (2,010/2,963)	↑	65.4% (1,172/1,792)	↓
<b>5</b> Increase the Number of Hispanic Students Enrolled at KCKCC	1	AY2013: 1,295 AY2014: 1,310 AY2015: 1,440 Baseline: 1,348	1,623	↑	1,806	↑	1,912	↑
<b>6</b> Increase Fall to Spring Retention of Non-College Ready Students		AY2013: 68.1% (833/1,223) AY2014: 68.2% (717/1,052) AY2015: 69.4% (666/960) Baseline: 68.5% (2,216/3,235)	69.1% (808/1,170)	↑	66.6% (745/1,119)	↓	64.9% (716/1,104)	↓

\*Updated 4/20/2018

## Kansas City Kansas Community College Performance Report AY2019

### **Indicator 1: Increase First to Second Year Retention of First-time, Full-time College Ready Students**

**Description:** The First to Second Year Retention Rate measures the percentage of the college-ready cohort as reported by KHEDS, and is defined as the first-time, full-time, degree-seeking students who enrolled at KCKCC for two consecutive fall terms and tested into credit-bearing classes during the initial term of enrollment.

**Outcome/Results:** Continued initiatives and strategies which have had a positive impact on retention include the following: online and over-the-phone advising for students; allowing students with less than 30 credit hours to enroll themselves; advisors connecting students with resources; early enrollment in college success course BLUE 0101 (Freshman Seminar: Better Life Utilizing Education); retention alert use by faculty is encouraged and has increased; newly remodeled Success Center for student advisement, career services, and testing services; and the Military Veterans Center's recent opening which provides support to our military students.

### **Indicator 2: Increase the Number of Certificates and Degrees Awarded**

**Description:** The total number of certificates and degrees awarded is a three-year count of awards, as reported by KHEDS; the baseline represents an average of these. The number of awards does not include programs of fewer than 16 credit hours.

**Outcome/Results:** Students must meet with a student success advisor until they have completed 30 hours, which allows the students to stay on track and complete their certificates and degrees. The graduation application process/checks shifted to an online process, which allowed the process to be more student-friendly and efficient.

### **Indicator 3: Increase the Percentage of Students Employed or Transferred**

**Description:** The percent of students employed or transferred in Kansas is defined as the percentage of students who are employed or transferred within a year of graduation from KCKCC.

**Outcome/Results:** Two career fairs are hosted each year for students to attend and visit with future four-year institutions. Representatives from other colleges frequently visit KCKCC to meet with students to facilitate the transfer process. The KCKCC transfer club arranges campus visits and provides transportation for students to visit transfer institutions. KCKCC has also entered into several transfer agreements with four-year institutions to encourage more students to transfer.

### **Indicator 4: Increase the success rate in non-developmental courses enrolled by the students who successfully complete the developmental courses**

**Description:** The denominator is the total number of class enrollments or number of grades in the developmental classes by the students who successfully completed in MATH0099, READ0092, and ENGL0099 with a grade of C or better. The numerator is the number of grades that are C or better in the non-developmental courses enrolled by the students who completed developmental courses successfully. The non-developmental courses are MATH-0104, ENGL-0101, ENGL-0102, PSYC-0101, SPCH-0151, MATH-0105, SOSOC-0107, BIOL-0141, PHIL-0206. These are the top nine most frequently taken courses by the students after completing developmental courses.

**Outcome/Results:** At this time, it is undetermined why this metric decreased. We will work with our institutional research and institutional effectiveness office to determine if the success rate in these cohorts decreased evenly across respective disciplines or if there are particular demographic groups that declined at a higher rate than the average in these specific classes. Based on the results of these investigations, the college will implement strategies to improve student success as needed. Another possibility is the student changed modalities from the developmental courses to the non-developmental courses, which may have also led to the decline. We will explore this scenario as well.

**Indicator 5: Increase the Number of Hispanic Students Enrolled at KCKCC**

**Description:** This indicator represents the total number of unduplicated Hispanic students enrolled in an academic year, including both first-time and returning students. It is related to the strategic goal in KBOR’s Foresight 20/20, “Increasing Higher Education Attainment Among Kansans.”

**Outcome/Results:** The college’s Strategic Plan 2020-2023 calls for an increase in education opportunities to historically underrepresented populations in the Greater KC region and has identified resources for this purpose. KCKCC enrollment management and other divisions have increased the number of Spanish speaking personnel. Messaging and promotional materials are available in both English and Spanish. Several college initiatives, such as BizFest and Saturday Academy, focus on recruiting Hispanic students.

**Indicator 6: Increase Fall to Spring Retention of Non-College Ready Students**

**Description:** Non-college ready students are defined as those testing into one or more developmental classes, regardless of enrollment in said classes; retention is the re-enrollment of students from fall to the consecutive spring semester.

**Outcome/Results:** Through a regular review of Lexile scores, the developmental reading instructors noticed that students were being incorrectly placed in the developmental reading sequence, which may have led to a decrease in fall to spring retention. A true multiple measures model was adopted this year, including usage of high school GPA and high school English grades, to be utilized when test scores are on the cusp of placement in non-developmental courses, to hopefully ensure proper placement and thus increase retention. There may have also been other, unknown reasons why this population showed a decrease in retention while other students had increased retention.

Seward County Community College Performance Report AY 2019							AY 2019 FTE: 1,175	
Contact Person: Luke Dowell			Phone and email: 620-417-1014; <a href="mailto:luke.dowell@sccc.edu">luke.dowell@sccc.edu</a>				Date: 8/18/2020	
Seward County Community College	Foresight Goals	3 yr History	AY 2017 (Summer 2016, Fall 2016, Spring 2017)		AY 2018 (Summer 2017, Fall 2017, Spring 2018)		AY 2019 (Summer 2018, Fall 2018, Spring 2019)	
			Institutional Performance	Outcome	Institutional Performance	Outcome	Institutional Performance	Outcome
1 Increase the number of certificates and degrees awarded	1	AY2013 - 450 AY2014 - 488 AY2015 - 484 Baseline: 474	527	↑	566	↑	513	↑
2 Performance of students on institutional quality measures -Increase success rate of students in College Algebra	2	Fall 13 – 166/220 (75.5%) *Fall 14 – 189/232 (81.5%) Fall 15 – 170/215 (79.1%) Baseline: 525/667 (78.7%)	77.4% (181/234)	↓	74.5% (172/231)	↓	72.1% (189/262)	↓
3 Increase three-year graduation rates of college ready cohort	1	*Fall 10 Cohort – 75/149 (50.3%) Fall 11 Cohort – 101/204 (49.5%) Fall 12 Cohort – 97/196 (49.5%) Baseline: 273/549 (49.7%)	37.2% (73/196)	↓	47.8% (88/184)	↓	48.5% (97/200)	↓
4 Increase the success rate of developmental writing students in English Composition I	1	Fall 12 Cohort – 23/35 (65.7%) Fall 13 Cohort – 24/36 (66.7%) Fall 14 Cohort – 39/59 (66.1%) **Baseline: 86/130 (66.2%)	59.2% 32/54	↓	66.1% (39/59)	↔	73.7% (42/57)	↑
5 Increase the first to second year retention rate for college ready cohort	1	*Fall 12 Cohort: 122/191 (63.9%) Fall 13 Cohort: 102/159 (64%) Fall 14 Cohort: 115/196 (59%) Baseline: 339/546 (62.1%)	57.4% (112/195)	↓	60.3% (82/136)	↓	65.1% (99/152)	↑
6 Increase the % of full-time students completing 24 credit hours in their first year	1	Fall 12 Cohort – 144/360 (40%) Fall 13 Cohort – 213/310 (69%) Fall 14 Cohort – 238/349 (68%) Baseline: 595/1,019 (58%)	73% 256/353	↑	73% (219/301)	↑	70.7% (200/283)	↑

\*Updated 7/18/2018

\*\*Updated 10/16/2019

## Seward County Community College Performance Report AY 2019

### **Indicator 1: Increase the number of certificates and degrees awarded.**

**Description:** The data for this indicator is provided by the Kansas Higher Education Data System.

**Outcome/Results:** Awards were 8% above baseline but 9% below AY2018. The most significant change was the CNA/ CMA programs, which declined by 53 students from AY2018 to AY2019. This decline is directly related to a shortage of instructors. Over the last year Seward has added two online CNA courses to extend access to our rural students and maximize the limited instructors available. Clinical sites will continue to be a concern in future years

### **Indicator 2: Increase the success rate of students in College Algebra.**

**Description:** This indicator uses data from the National Community College Benchmark Project. It allows us to compare our success rates with peer colleges and with all participating community colleges in the nation. The denominator represents all students taking college algebra in the fall semester, while the numerator represents students successfully completing the course with a grade of A, B, or C.

**Outcome/Results:** Success rates of students in college algebra were 6.6 percentage points below baseline and 2.4 percentage points below AY2018. Examining three-year trends broken down by delivery (online, high school concurrent and on campus) we found the only decline in success rates occurred with high school concurrent students and that high school concurrent students have experienced a steady decline in college algebra success since AY2017. Success rates in College Algebra were flat for online delivery and flat to a slight increase on campus. During the 2019-2020 Academic Year expectations for lead instructors were implemented to ensure consistent communication, expectations, and reporting from all concurrent instructors. This communication should improve student success by giving concurrent instructors more support and resources to help their students.

### **Indicator 3: Increase the three-year graduation rate of the college ready cohort.**

**Description:** The data for this indicator is provided by the Kansas Higher Education Data System.

- 1) All first-time, full-time degree or certificate seeking students entering the fall semester.
- 2) Full-time is defined as 12 or more credit hours for the fall semester.
- 3) College ready is defined as students not requiring any developmental education courses.

**Outcome/Results:** Three-year graduation rates were 1.2 percentage points below baseline of 49.7% but increased .7 percentage points over AY2018 results. English composition, reading intensive course, and math placement have been enhanced for the '20'21 enrolment cycle by establishing high school course grade standards in addition to Accuplacer and ACT placement standards. This is meant to start students off in courses that decrease their time to certificate or degree completion by increasing completion of program and general education courses that count toward their goal completion.

### **Indicator 4: Increase the success rate of developmental writing students in English Composition I.**

**Description:** This indicator uses data from SCCC's student information system (SIS Banner). It allows us to compare success rates between our new pilot program (English Composition I PLUS), developmental and college ready students. This indicator focuses on student success in their first college level writing course after or DURING completion of a developmental writing course with a grade of A, B, or C. The denominator represents all students completing English Composition I within one year of successfully completing developmental writing. The numerator indicates the students completing English Composition I with a grade of A, B, or C. Note: Measure modified from prior year report to include the new pilot program students.

**Outcome/Results:** English Comp I success rates increased 7.5 percentage points over baseline and 7.6 percentage points over AY2018. In the fall semester of 2018, SCCC implemented English Composition I Plus, which allowed students who placed one step below English Comp I to take English Comp I but also have

two additional days with their instructor for further “just in time” review and support to be successful in Comp I. Success rates have been favorable so far, with Comp I Plus students having a higher pass rate than students who take traditional developmental English courses first and those who place directly into Comp I. In addition to the numbers of students who did not finish courses during the spring 2020 semester, the college changed placement rules during the spring 2020 semester to base placement on high school GPA and high school course grades since it would be challenging to have students take placement tests during the pandemic. This could affect results moving forward as well.

**Indicator 5: Increase the retention rate of degree / certificate seeking students.**

**Description:** This indicator uses retention data from KHEDS and focuses on the first year to second year retention rate of the college ready cohort of students. The denominator represents all degree or certificate seeking students, not requiring developmental education for the program of enrollment (e.g. students enrolled in Welding Technology certificate program) or placing into college-level courses (e.g. transfer track student). The numerator indicates students retained from fall to fall.

**Outcome/Results:** First to second year retention rates for college ready students increased by 3 percentage points over baseline and 4.8 percentage points over AY2018. The data reflects students who enrolled in fall 2017 as first-time, full-time college ready students, and completed or returned in fall 2018. Seward’s Retention Committee discovered our declines in fall-to-fall retention rates were due primarily to two issues: financial concerns and communication. Over the last two years, Seward has improved some financial aid inefficiencies and expanded our communication strategies to address these two concerns. SCCC’s ‘20’21 enrollment management’s student pathways enhancements include: an added web page for student exploration of majors and career; TRIO, student success, and admissions staff training on majors and careers; and facilitation of Industrial Technology student self-enrollment and student tracking of their progress on their individual pathway to program completion.

**Indicator 6: Increase the % of first-time, full-time students completing 24 credit hours in their first year of college.**

**Description:** This indicator focuses on increasing the percentage of full-time entering freshman completing 24 or more credit hours in their first year of college. The data used to calculate this indicator are provided by KHEDS.

- 1) All first-time, full-time degree or certificate seeking students entering in the fall semester.
- 2) Full-time is defined as 12 or more credit hours for the fall semester.
- 3) Credit hour accumulation in first year is the number of full-time students who earned 24 credit hours in the fall, spring, and summer terms combined.
- 4) The indicator is calculated by taking the total from (3) and dividing by the total from (1).

**Outcome/Results:** Percentage of full-time students completing 24 credit hours in their first year increased 12.7 percentage points over baseline but declined slightly (2.3 percentage points) from AY2018. English composition, reading intensive course, and math placement has been enhanced for the ‘20-’21 enrolment cycle by establishing high school course grade standards in addition to Accuplacer and ACT placement standards. This is meant to start students off in courses that decrease their time to certificate or degree completion by increasing completion of program and general education courses that count towards goal completion.

**Manhattan Area Technical College Performance Report AY 2019**

AY 2019 FTE: 494

Contact: Kimberly Withroder		Phone and email: 785-320-4564 <a href="mailto:kimwithroder@manhattantech.edu">kimwithroder@manhattantech.edu</a>				Date:5/4/2020		
Manhattan Area Technical College	Foresight Goals	3 year History	AY 2017 (Summer 2016, Fall 2016, Spring 2017)		AY 2018 (Summer 2017, Fall 2017, Spring 2018)		AY 2019 (Summer 2018, Fall 2018, Spring 2019)	
			Institutional Performance	Outcome	Institutional Performance	Outcome	Institutional Performance	Outcome
1 Increase the number of certificates and degrees awarded	1.1	AY 2013 = 400 AY 2014 = 365 AY 2015 = 396 Baseline = 387	431	↑	396	↑	386	↔
2 Upon completion of their programs, increase the percent of students employed or transferred	2.2	AY 2012: 258/404 = 63.9% AY 2013: 261/399 = 65.4% *AY 2014: 268/359 = 74.7% *Baseline: 787/1,162 = 67.7%	70.5% (285/404)	↑	63.0% (237/376)	↓	63.9% (209/327)	↓
3 Upon completion of their programs, increase the number of industry credentials earned by students	2.5	AY 2013 = 302 AY 2014 = 341 AY 2015 = 405 Baseline = 349	AY 2016: 383	↑	AY 2017: 355	↑	AY 2018: 368	↑
4 Of the students testing into remedial work (ACCUPLACER Elementary Algebra < 47 or Arithmetic < 71; Sentence Skills < 69), increase percent retained to the next academic year	1.2	AY 2014: 75.5% (213/282) AY 2015: 76.1% (175/230) AY 2016: 60.8% (113/186) Baseline = 71.8% (501/698)	AY 2017: 64% (41/64)	↓	AY 2018: 59.6% (65/109)	↓	AY 2019: 66.7% (24/36)	↓
5 Increase students' core workplace skills, as measured using standardized rubrics, in the technical component of their programs	2.1	AY Data: 2014: Avg. Score=74.9% (N=643) 2015: Avg. Score=78.1% (N=707) 2016: Avg. Score=78.7% (N=668) Baseline = 77.3%	Avg. Score = 78.8% (N=432)	↑	Avg. Score: 89.5% (N=39)	↑	Avg. Score = 77.4% (N=235)	↑
6 Increase the percent of students who complete their certificate or degree within two years or are retained at MATC	1.1	AY Year: Completion + Retention = Total 2010: 47% + 15% = 62% 2011: 49% + 15% = 64% 2012: 56% + 9% = 65% Baseline = 51% + 13% = 64%	AY 2013: 18.5% + 41% = 59.5%	↓	AY 2014: 52.0% + 12.1% = 64.1%	↔	AY 2015: 44.4%+22.3% =66.7%	↑

\*updated 7/10/18

## Manhattan Area Technical College Performance Report AY 2019

### **Indicator 1: Increase the number of certificates and degrees awarded.**

**Description:** In order to increase completion rates, MATC has implemented a variety of initiatives that should result in more AAS Degrees, Technical Certificates, and Certificates of Completion being awarded. First, as will be expanded on under Indicator 4, modifications were made to the Workplace Writing (COM-100) and Workplace Math (MAT-099) courses, which should result in higher pass rates in English and Math courses that fulfill the general education requirements. Second, we have a computer program (Accudemia) that serves as an early alert system for at-risk students. It provides a platform for referrals by Faculty and Student Services staff and notifies the Director of the Learning Resource Center and the student's advisor resulting in proactive responses that facilitate early intervention. This indicator is in line with Foresight 2020 Goal 1.

**Outcome/Results:** As the changes we implemented to increase completions rates just went into effect, we haven't had the opportunity to see the positive outcomes during AY 2019 year, however while we had a peak in AY 2017 we have maintained our baseline on the number of certificates and degrees awarded. Additionally, with the internship and on-job-training that a majority of our programs incorporate into the curriculum, we continue to lose students prior to degree completion as a result of low unemployment rates to industries who need workers now. We continue to communicate with industry partners about the importance of completion of the program as it trains a better potential employee. MATC is hopeful that with the curriculum changes, addition of new retention software, and continued industry partnerships we can increase the number of students in the successful completion of certificates and degrees.

### **Indicator 2: Upon completion of their programs, increase percent students employed or transferred.**

**Description:** This indicator is tied to Indicators #1 above and #3 below. Without retention through successful completion of the program (Indicator 1) and successful acquisition of an industry credential (Indicator 3), increasing the numbers of students employed after leaving MATC would be impossible. Thus, retention is the key to success on all three indicators. That being said, MATC is taking additional steps to facilitate employment after graduation. First, several programs have mechanisms (Occupational Work Experience (OWE), clinical, internships, etc.) in place to ensure their students have opportunities to meet and talk to individuals in program-related businesses. Many students are hired by the companies at which they have completed OWE and/or internships. In terms of students continuing their education at another institution new articulation agreements were developed at the college level, as well as the statewide agreements facilitated by KBOR. This more seamless approach to transfer through articulation agreements results in more students moving on to complete bachelor degrees and beyond at other institutions. Given all of the initiatives related to facilitating contact between students and potential employers, and the steps taken for a seamless transition to other postsecondary institutions, the numbers of students employed and/or continuing their education will continue to increase. This indicator is in line with Foresight 2020 Goal 2.

**Outcome/Results:** While we're still below our baseline, we have increased our percentage from the prior year. MATC continues to identify ways to obtain follow-up data towards increasing the accuracy of placement data. We have implemented additional opportunities to collect this information from graduating students which should result in a higher percentage of data being recorded to reflect students who are employed or have transferred.

### **Indicator 3: Upon completion of their programs, increase the number of industry credentials earned by students.**

**Description:** Possession of an industry credential or credentials greatly enhances the likelihood that graduates will be hired for a job related to their program of study. Currently, 13 of 16 programs (certificate only, certificate or degree, and Stand Alone Parent Programs) provide students with opportunities to earn one or more industry credentials. We are currently exploring the availability of ISO-17024 certifications for the remaining three programs. Successful retention based on the initiatives being implemented under Indicator 1 should result not only in increased numbers of certificates and degrees, but also increased numbers of industry credentials. This indicator is in line with Foresight 2020 Goal 2.

**Outcome/Results:** MATC continues to identify industry credentials that can be earned by students. With the incorporation of a regional testing center in AY2019 that provides Pearson Vue testing as well as additional national testing opportunities, access to obtaining credentials has increased for students. This is reflective of us being above our baseline and we anticipate that students obtaining credentials will continue to increase.

**Indicator 4: Of the students testing into remedial work (ACCUPLACER Elementary Algebra < 47 or Arithmetic < 71; Sentence Skills < 69), increase the percent who are retained to the next academic year.**

**Description:** One of the main obstacles for students to finish their Certificate or AAS Degree is the completion of the general education requirements, including English and/or Math. MATC uses ACCUPLACER exams to evaluate incoming students in reading, writing, and math courses for the purpose of placement. Students who have ACCUPLACER Sentence Skills scores < 69 must take Workplace Writing (COM-100) and students who have a ACCUPLACER Elementary Algebra < 47 or Arithmetic < 71 must take either Workplace Math (MAT-099—2 credit hours) or Technical Mathematics I with Review (MAT-102—5 credit hours). Students must pass COM-100 with a “C” or better to be eligible to take an English course that fulfills the general education requirement (i.e., English Composition (COM-105) or Technical Writing (COM-110)). Students must pass MAT-099 with a “C” or better to be eligible to take Technical Mathematics I (MAT-101), the course that fulfills the certificate option. Students who pass MAT-102 with a “C” or better will meet the general education math requirement for a certificate. This indicator is in line with Foresight 2020 Goal 1 in that it will serve to increase retention rates at MATC.

**Outcome/Results:** This indicator continues to decrease compared to prior years as MATC no longer places students in developmental courses. As a majority of our students earn a certificate, the requirement is technical math and/or technical writing. With the current process, students are placed into those levels and students who test into remedial work are required to participate in a companion math recitation or a writing companion course. The decrease in numbers is a positive in that more students are successfully completing technical math and/or tech writing successfully towards completion of a certificate. This results in these individuals entering the workforce within the appropriate timeframe of an academic year, rather than having to take an additional semester of course work. MATC should see future increased results of this curriculum approach in completion of certificates/degrees as outlined in indicator 1 and 6.

**Indicator 5: Increase students' core workplace skills, as measured using standardized rubrics, in the technical component of their programs.**

**Description:** Underlying job-specific technical knowledge, skills, and abilities are core workplace skills that are relevant to any job in any setting. These core skills include oral and written communication, critical thinking, problem solving, quantitative literacy, ethical reasoning, and so on. Core skills are regularly used in practice resulting in the development of a series of rubrics that serve as guides to assessment. Each rubric consists of 20 criteria; 5 of which are broad enough to be used in any discipline, while the remaining 15 provided higher degrees of specificity and applicability in particular disciplines. Members of the Assessment Committee work with individual faculty to show how these rubrics can be used to assess something they are already doing as part of the technical training. This indicator is in line with Foresight 2020 Goal 2.

**Outcome/Results:** AY2019 was the initial implementation of MATC’s new assessment process for core work skills as accepted through the Higher Learning Commission. This is evident in the decrease of number of participants last year in AY2018 compared to AY2019. MATC continues to improve its process to assess this data across all programs as a means to improve our abilities to provide these skills within all program areas.

**Indicator 6: Increase the percent of students who complete their certificate or degree within two years or are retained at MATC.**

**Description:** Since 2010, upon receiving full accreditation from the HLC, MATC has actively pursued strategic growth initiatives that include increasing the capacity of some existing programs, initiating new programs, and expansion of general education course offerings. The pattern of strategic growth continues so we expect to see continued gains in the areas of completion and retention. This indicator is in line with Foresight 2020 Goal 1.

**Outcome/Results:** MATC saw an increase in AY2015 of students completing a certificate or degree within two years or are retained. This is due to the change in how MATC utilized its system to track when students entered MATC and the completion of chosen program of study. The college anticipates that we will continue to see an increase in future cohorts as we have become more effective in capturing data and reporting.

North Central Kansas Technical College Performance Report AY 2019						AY 2019 FTE: 616		
Contact Person: Jennifer Brown			Phone and email: 785-738-9085; Jbrown@ncktc.edu			Date: 7/31/2020		
North Central Kansas Technical College	Foresight Goals	3yr History	AY 2017 (Summer 2016, Fall 2016, Spring 2017)		AY 2018 (Summer 2017, Fall 2017, Spring 2018)		AY 2019 (Summer 2018, Fall 2018, Spring 2019)	
			Institutional Performance	Outcome	Institutional Performance	Outcome	Institutional Performance	Outcome
1 Increase the first to second year retention rates of the college-ready cohort.	1	*Fall 12 Cohort: 71.0% (120/169) Fall 13 Cohort: 74.5% (129/173) Fall 14 Cohort: 75.0% (123/164) *Baseline: 73.5% (372/506)	68.5% (124/181)	↓	75.9% (104/137)	↑	79.6% (82/103)	↑
2 Increase the graduation rate of the college-ready cohort.	1	Fall 10 Cohort: 63.3% (107/169) Fall 11 Cohort: 65.5% (112/171) Fall 12 Cohort: 64.5% (109/169) Baseline: 64.4% (328/509)	67.7% (111/164)	↑	71.3% (119/167)	↑	62.4% (113/181)	↓
3 Increase the number of third party credentials awarded to students.	2	AY 2013: 480 AY 2014: 538 AY 2015: 892 *Baseline: 637	1,208	↑	1,146	↑	1,005	↑
4 Increase the completion rate for the sequential college-level course for students enrolled in remedial courses.		2013: 83% (40/48) 2014: 90% (38/42) 2015: 93% (41/44) **Baseline: 88.8% (119/134)	83.3% (30/36)	↓	88.5% (46/52)	↓	91.8% (67/73)	↑
5 Increase the number of adult learners (25+) enrolled.	1	AY 2013: 218 AY 2014: 318 AY 2015: 358 Baseline: 298	308	↑	284	↓	301	↑
6 Increase the number of credit hours completed via distance learning.		AY 2013: 836 AY 2014: 989 AY 2015: 1,079 Baseline: 968	1,434	↑	1,441	↑	1,590	↑

\*Updated 7/10/2018  
\*\*Updated 7/24/2019

## North Central Kansas Technical College Performance Report AY 2019

### **Indicator 1: Increase first to second year retention rates of the college-ready cohort.**

**Description:** NCK Tech offers both certificate and AAS degrees. This indicator will target AAS degree seeking students.

#### **Outcome/Results:**

NCK Tech made directional improvement in first to second year retention from the baseline and the previous academic year. The College finished the final year of participation in the Higher Learning Commission's Persistence and Completion Academy. Through the work in the Academy, the College studied student success data and trends. In response, NCK Tech developed an early alert system to assist student persistence. The early alert system, SOS, was implemented in fall 2017. Data from SOS usage points to a slight increase in fall to spring retention. We believe connecting with students early will help in breaking down the barriers toward successful retention and completion. Student persistence and completion are woven throughout NCK Tech's strategic plan, ASPIRE 2022, including objectives to increase retention and a specific objective to create an early alert system. Though this indicator targets NCK Tech's AAS degree programs, the College has created opportunities for certificate students to combine one-year programs to earn an AAS, offering degrees in Technical Studies, Construction Technology, and General Business to provide more options to retain students.

### **Indicator 2: Increase the graduation rate of the college-ready cohort.**

**Description:** Students earning AAS degree and certificate seeking students (diploma seeking students) will be counted towards meeting this indicator.

#### **Outcome/Results:**

NCK Tech did not make directional improvement on this indicator from the baseline or the previous academic year. NCK Tech continues to focus on improving the graduation rate, including specific objectives within the strategic plan. To improve graduation rates, NCK Tech will continue to assist students to complete by intervening early in students' academic careers and connecting them with campus resources, utilizing the campus Student Success Center and institutional advisors. NCK Tech practices proactive advising; advisors check-in with students at pre-determined checkpoints throughout each semester. To note, week six each semester is an advising checkpoint. Data shows this a critical time in student persistence. Faculty and advisors continue to collaborate to pinpoint at-risk students and provide services and support needed for completion through the Success Center on the Beloit campus and through the Gateway Program with Fort Hays State University on the Hays campus. NCK Tech's student success course, Tech Connect, is a requirement for all incoming students. This course serves to acclimate new students to NCK Tech, develop academic skills, and prepare students for success while at the institution.

### **Indicator 3: Increase the number of third party credentials awarded to students.**

**Description:** The number of third-party industry credentials students enrolled at NCK Tech earn during their enrollment as reported in the follow-up collection. Credentials counted include: RN, LPN licensure, MACS, ICAR Welding, ASE/NATEF, CET, FCC, HVAC Excellence, AWS, NCCER, Kansas Journeyman's, EPA 608, OSHA10 and Certified Pharmacy Tech. This list is fluid as we continue to add additional certifications for our students.

#### **Outcome/Results:**

NCK Tech students continue to be successful in credential and licensure exams. The College made directional improvement from the established baseline. We believe the industry credentials and licensures NCK Tech graduates earn provide opportunities in the workforce. Credentialing and licensure exams also serve as program-level assessment tools in many of our programs by validating student learning. NCK Tech is in compliance with curriculum alignment, offering credentials as outlined. Students are offered more opportunities to take credential exams, as several departments offer more than one credential to students (including Diesel Technology, Welding Technology and Automotive Technology as example). NCK Tech, through advisory boards and industry partners, continues to find meaningful credentials to make our graduates competitive.

**Indicator 4: Increase the completion rate for the sequential college-level course for students enrolled in remedial courses.**

**Description:** Students who enroll in a remedial course (Basic Algebra or Introduction to Composition) and then complete the college-ready course within the sequence will be included for this indicator.

**Outcome/Results:**

NCK Tech made directional improvement from the baseline percentage in students enrolled in remedial courses who completed their sequential college-ready courses. AY 2019 is the first year NCK Tech implemented a co-requisite model for remedial courses. Students enroll in the College-level course during the same semester they enroll in a remedial section. Students are provided additional supports and extended time via the remedial section to increase persistence and completion of the college-ready course. Remedial sections are offered for Essential Math, Intermediate Algebra and English Composition I. Essential Math and Intermediate Algebra both can be used to fulfill the math requirement for an Associate of Applied Science Degree. The College still offers Introduction to Composition as a full-semester developmental course for students needing extra assistance in developing writing skills prior to enrolling in English Composition I. Early indications appear to show the co-requisite model increases students' persistence in completing the college-ready course.

**Indicator 5: Increase the number of adult learners**

**Description:** Adult learners defined as students 25 and older upon enrollment will be counted. Students enrolled as full-time in certificate and AAS programs and students enrolled in short-term programs will be included.

**Outcome/Results:**

NCK Tech made directional improvement in the number of adult learners enrolled, slightly increasing enrollment in this demographic. The College continues to have success enrolling this demographic in short-term programs such as Underground Technology, CNA (Certified Nursing Assistant), CDL (Commercial Driving License), and others. The Dane Hansen Foundation has partnered with the College to provide grant funding focused on assisting adult learners earn a credential. The grant provides financial assistance for tuition, fees and living expenses to full-time adult students. NCK Tech created a new position for AY 2020, the Dean of Enrollment Management. The focus of this position is to increase enrollment over all sectors of the College and develop targeted plans to meet the needs of prescribed demographics.

**Indicator 6: Increase the number of credits completed via distance learning**

**Description:** Credit hours successfully completed by all groups of students through distance learning. Courses include technical, general education and short-term courses.

**Outcome/Results:**

NCK Tech continued to make directional improvement on this indicator, improving from the baseline and the previous academic year. The College experienced an increase in online enrollment following the national trends as students consider a variety of enrollment choices to meet their educational needs. NCK Tech's online offerings include General Education courses and short-term courses such as CNA (Certified Nursing Assistant) and CDL (Commercial Driving License). Growth in online is stemming from high school students enrolling in online courses. More high schools in the region are using online courses for areas in which they are unable to recruit credentialed instructors. NCK Tech has also experienced growth in this area by students earning the required pre-requisites for Nursing. The College encourages faculty to continue to develop online offerings, seeking more technical course offerings.

Salina Area Technical College Performance Report AY 2019							AY 2019 FTE: 464	
Contact Person: Denise Hoeffner			Phone and email: 785-309-3110, denise.hoeffner@salintech.edu				Date: 7/27/2020	
Salina Area Technical College	Foresight Goals	3 yr History	AY 2017 (Summer 2016, Fall 2016, Spring 2017)		AY 2018 (Summer 2017, Fall 2017, Spring 2018)		AY 2019 (Summer 2018, Fall 2018, Spring 2019)	
			Institutional Performance	Outcome	Institutional Performance	Outcome	Institutional Performance	Outcome
1 Increase the three-year graduation rates of college ready cohort.	1	Fall 09 Cohort: 61% (83/136) Fall 10 Cohort : 61.5% (91/148) Fall 11 Cohort : 65.1% (84/129) *Baseline: 62.5% (258/413)	76.5% ** (127/166)	↑	69.9% (100/143)	↑	76.2% (77/101)	↑
2 Increase percent of students employed or transferred in Kansas one calendar year after graduation.	2	2012: 74.3% (410/552) 2013: 77.3% (418/541) *2014: 82.0% (346/422) *Baseline: 77.5% (1,174/1,515)	82.6% (319/386)	↑	78.6% (298/379)	↑	76.1% (286/376)	↓
3 Increase the wages of students hired.	2	2013: \$27,516 2014: \$19,930 2015: \$21,912 Baseline: \$23,119	\$26,168	↑	\$23,508	↑	\$25,923	↑
4 Increase the number of college-level credit hours completed by concurrently-enrolled students.	1	2013: 1,247 2014: 1,851 2015: 2,310 Baseline: 1,803	3,688	↑	4,390	↑	5,726	↑
5 Increase the number of students completing programs in high demand occupations in Kansas	2	2013: 64 2014: 73 2015: 67 Baseline: 68	78	↑	309	↑	353	↑
6 Increase the percentage of degree/certificate-seeking, non-college-ready students who complete their program and/or are retained for the next academic year	1	2013: 85.9% (49/57) 2014: 74.5% (35/47) 2015: 67.8% (82/121) Baseline: 73.8% (166/225)	84.9% (62/73)	↑	62.0% (119/192)	↓	70.2% (106/151)	↓

\*Updated 7/10/2018

\*\*Updated 8/2/2019

## Salina Area Technical College Performance Report AY 2019

### **Indicator 1: Increase the three-year graduation rates of college ready cohort.**

**Description:** The mission of Salina Area Technical College is to meet employment needs by providing a diverse community of learners. Our goal is to not only obtain more students but to retain them once they've enrolled. We have implemented an Early Alert system and we continue to communicate the importance and advantage of degree completion to students. All students meet formally with their advisor at least once per semester and informally, many times. Salina Tech has an Outreach Coordinator to assist students with barriers to college entrance. For this indicator, three years of historical data was taken from the IPEDS Grad Rates Within 150% Survey.

### **Outcome/Results:**

These data were confirmed by KBOR. Our graduation rate within 150% of normal time to completion, as submitted to IPEDS during the 2017-18 academic year, for the Fall 2014 cohort, was 76.2% (77/101). This is higher than our baseline graduation rate of 62.5%.

### **Indicator 2: Increase percent of students employed or transferred in Kansas one calendar year after graduation (KBOR/KDOL data).**

**Description:** Every program at SATC has its own industry based advisory board that guides the program instructors as to the best employment skills for the program graduates to have upon graduation. In addition, Student Services follows up with SATC's graduates' employers by conducting a satisfaction survey. This survey, in addition to the valued opinions of the advisory boards, gives college faculty and instructional staff the information that they need to ensure that students are learning the skills they require to find and keep employment in Kansas. SATC will also work with the Chamber of Commerce to develop and promote mini job fairs at the College in early spring. This indicator coincides with Salina Tech's strategic plan on several levels by matching the goals of improving visibility and perception, by enrollment growth, and most importantly, by providing quality instruction that meets community needs. For this indicator, three years of historical data was taken from KBOR and KDOL.

### **Outcome/Results:**

These data were provided by KBOR. We had 76.1% of our students employed or transferred in Kansas within one calendar year of graduation from SATC. Unfortunately, this is down slightly from our baseline percentage of 77.5%.

### **Indicator 3: Increase the wages of students hired.**

**Description:** Many Salina Area Technical College graduates have the potential to earn a higher starting wage after completing only one or two years of training than the average 4-year graduate. SATC continues to recruit and encourage students to enter high wage, high demand occupations such as Commercial Truck Driving, Heating Ventilation and Air Conditioning, Computer Aided Drafting, Emergency Medical Technicians and Electricians. Students graduating from these programs can expect to earn a higher than average starting salary right after graduation. As these are high demand occupations as well, there are many employment opportunities throughout Kansas. The wages of students hired were provided by the Kansas Department of Labor and were included in the KBOR K-TIP Report.

### **Outcome/Results:**

These data were provided by KBOR. The average wages of our students were \$25,923, which is higher than our baseline of \$23,119. The \$25,923 amount excludes Missouri data since we began our indicator prior to the inclusion of Missouri data in the K-TIP report.

### **Indicator 4: Increase the number of college-level credit hours completed by concurrently-enrolled students.**

**Description:** Salina Area Technical College places significant emphasis on overall enrollment as part of our strategic plan. The college has placed significant time and effort in partnering with local and area high schools in order to expose students to career and technical education. New partnerships and agreements are being

developed and implemented. For this indicator, three years of historical data was taken from KHEDS AY files. These data represent college-level credit hours successfully completed (with a grade of P, C, B, or A) by concurrently-enrolled students.

**Outcome/Results:**

During AY19, concurrently-enrolled high school students successfully completed 5,726 college credit hours, which is a significant increase over our baseline of 1,803 completed credit hours. In fact, this is an increase of over 300%.

**Indicator 5: Increase the number of students completing programs in high demand occupations in Kansas.**

**Description:** The mission of Salina Area Technical College is to meet employment needs of the region. Every program at SATC has its own industry-based advisory board that guides the program instructors as to the best skills to have for employment. In addition, Student Services follows up with SATC's graduates' employers by conducting a satisfaction survey. This survey gives SATC the information needed to ensure that students are learning the skills they need to find and keep employment in Kansas. SATC has collaborated with the Chamber of Commerce to hold mock interviews at the College in early spring. Additionally, SATC has formed partnerships with business and industry for customized, individualized trainings. For our baseline calculations, we used the following programs which corresponded to the Kansas Department of Labor high demand occupations that were current at that time, which included: CDL, HVAC, Medical, Dental, CAD, EMT and Electricians.

**Outcome/Results:**

Each year, for our performance report, we use the most current KDOL high demand occupations list. According to the KDOL, the 2019 High Demand Occupations in the state of Kansas still included those same seven occupations, but also included these additional occupations as well: Automotive Tech, Construction, Diesel Tech., CNA, Machining, Practical Nursing, and Welding. To continue to offer programs which are high demand occupations, Salina Tech recently added programs in Practical Nursing and an Associate Degree Nursing (AAS) program. However, our first class of Associate Degree Nursing students graduated in May 2020. Therefore, they have not yet been included in our State Performance Report. Data were pulled from our AY19 KHEDS Completions file for all fourteen of these specific high-demand programs. During AY19, 353 unduplicated students completed a program in one of the fourteen high-demand programs outlined above. This is an increase over our baseline, which was 68.

**Indicator 6: Increase the percentage of degree/certificate-seeking, non-college-ready students who complete their program and/or are retained for the next academic year.**

**Description:** We identified our non-college-ready group based upon math placement scores. We used placement scores that would place students into either Tech Math with Review or below. Our goal is to increase the percentage of degree/certificate-seeking, non-college-ready students who complete their program and/or are retained for the next academic year.

**Outcome/Results:**

During AY18, 151 non-college-ready students were enrolled as degree/certificate-seeking students. Of those 151 students, 106 of them completed a certificate or a degree during AY18 or they were retained (returned) for AY19. So, 70.2% of the non-college-ready students enrolled during AY18 successfully completed their respective programs or returned to continue working toward completion during AY19. Unfortunately, that percentage is down slightly from our baseline percentage of 73.8%.

## Act on Request for Approval of Courses for Systemwide Transfer

### Summary and Staff Recommendation

*The Transfer and Articulation Council (TAAC) reviewed reports from the October 16, 2020 Kansas Core Outcomes Groups (KCOG) Conference and approved outcomes for eight additional courses to be recognized for transfer across the Kansas Board of Regent System. TAAC recommends the Board Academic Affairs Standing Committee approve the eight new courses for inclusion in systemwide transfer, effective summer 2021. Staff recommends approval of this request.*

*12/01/2020*

### Background

To facilitate the ongoing process of seamless transfer among public post-secondary institutions, the Kansas Board of Regents (KBOR) established the Transfer and Articulation Council (TAAC) to provide oversight and implementation of the Board's transfer and articulation policy. TAAC has representation from each university and two additional university faculty serving at large on the Council. The two-year colleges have the same number of representatives with at least two members representing technical colleges.

TAAC hosts an annual conference for faculty representatives to meet within discipline-based Kansas Core Outcomes Groups (KCOG) and articulate core outcomes for specified courses recommended for systemwide transfer. Since 2012, faculty have articulated outcomes to 100 specified courses that transfer seamlessly among any public university or college in Kansas offering an equivalent course.

KBOR policy states:

#### *b. Systemwide Transfer and Articulation*

*To facilitate transfer and articulation across the Kansas public postsecondary education system, the Board shall provide for a Transfer and Articulation Council with oversight responsibility for implementing the Board's systemwide transfer and articulation policy. The Council's mission is to create structures and processes that facilitate student transfer and degree completion within Kansas higher education. The Council provides status reports, as appropriate, to the System Council of Chief Academic Officers.*

#### *i. The Transfer and Articulation Council shall:*

*(1) Charge the Kansas Core Outcomes Groups with developing specific course articulations;*

*(2) Adjudicate disagreement from the Kansas Core Outcomes Groups;*

*(3) Provide final recommendation on systemwide transfer of specific courses;*

*(The Board of Regents approves specific courses to be accepted for systemwide transfer from any public postsecondary educational institution in Kansas. Each course approved and accepted for systemwide transfer by the Board is identified by a shared course number that supports a student-first philosophy, and is designed to enhance educational planning and effortless course transfer. A Kansas Regents Shared Number (KRSN) uses a 3-letter prefix and a 4-digit course number to differentiate the KRSN number from individual institution course prefixes and numbers. Each institution retains its own unique course prefix and course number.)*

*(4) Assure quality and adherence to the agreed-upon learning outcomes of courses articulated across the institutions; and*

*(5) Review proposed revisions to Board policies and bring forward issues and trends that affect transfer and articulation.*

ii. *In addition, the Transfer and Articulation Council shall:*

- (1) Identify courses acceptable for systemwide articulation and transfer with a focus on lower division general education courses and introductory courses to majors;*
- (2) Create an effective, faculty-led structure for discipline level course articulations based on learning outcomes;*
- (3) Ensure that appeals processes exist: (a) for individual students at the institutional level; and (b) at the system level to ensure equitable resolution of transfer concerns between institutions;*
- (4) Address barriers to inter-institutional cooperation as they arise;*
- (5) Use learning outcomes to determine course equivalency; and*
- (6) Implement a clear and ongoing transfer structure.*

At the October 16, 2020 KCOG Conference, faculty established learning outcomes for eight new systemwide transfer courses and reviewed outcomes for 13 previously approved systemwide transfer courses. TAAC reviewed reports submitted by the KCOG Chairs and approved outcomes for eight new transfer courses, which are recommended for Board approval for systemwide articulation.

#### **Courses Presented for Approval**

TAAC presents the following courses to the Board as recommended for systemwide transfer effective summer 2021:

- ✓ BUS1030 Principles of Marketing
- ✓ CRJ2010 Criminal Law
- ✓ EDU2010 Children's Literature
- ✓ MAT0990 Intermediate Algebra
- ✓ PSI2010 Meteorology Lecture and Lab (combined)
- ✓ PSI2011 Meteorology Lecture
- ✓ PSI2012 Meteorology Lab
- ✓ REL1020 Old Testament

#### **Staff Recommendation**

Staff recommends approval of Principles of Marketing, Criminal Law, Children's Literature, Intermediate Algebra, Meteorology Lecture and Lab, Meteorology Lecture, Meteorology Lab, and Old Testament courses for systemwide transfer. If approved, the number of courses that transfer seamlessly among any university or college in the Kansas Board of Regents System offering an equivalent course would increase from 100 to 108.