KANSAS BOARD OF REGENTS
ACADEMIC AFFAIRS STANDING COMMITTEE

CONFERENCE CALL AGENDA
June 4, 2018
11:00 am

CONFERENCE CALL INFORMATION
DIAL: 866.620.7326
CONFERENCE CODE: 1366296630

I. Call To Order

II. Agenda Planning for June 20th Board Meeting

A. Consent Agenda

1.	Request Approval for a Master of Science in Data Analytics	*KSU*	*p. 2*
2.	Act on Creation of College of Applied Studies and School of Education	*WSU*	*p. 8*

III. Draft Agenda for June 20, 2018 BAASC Meeting

1.	Welcome	*Regent Bangerter*
2.	Approve Minutes from the May 16th and June 4th, 2018 committee meetings	
3.	Follow up on issues raised during the June 4th conference call regarding June 20th Board Consent items	
4.	BAASC 18-01 Approve Requests for Undergraduate Degrees in Excess of 120 Credit Hours	*Jean Redeker*
5.	BAASC 18-11 Receive update on Credit for Prior Learning	*Connie Beene* *Sam Christy-Dangermond*

Credit for Prior Learning (CPL) is the awarding of college credit for equivalent knowledge and skills gained outside the traditional post-secondary classroom and supports the Board's goal to increase higher education attainment among Kansans. The Report for CPL will include the first complete year of CPL data and will also summarize efforts to support the awarding of CPL for military learning and training, credit by examination, industry-recognized credentials, and other sources of CPL.

IV. Adjourn

Board Academic Affairs Standing Committee

Meeting Schedule

MEETING DATES		TIME	AGENDA MATERIALS DUE
June 4, 2018	Conference Call	11:00 am	May 21, 2018
June 20, 2018	Face to Face	10:30 am	May 30, 2018

New Program Proposal: Program Summary
Kansas State University
Master of Science in Data Analytics

Summary
Universities may apply for approval of new academic programs following the guidelines in the Kansas Board of Regents Policy Manual. Kansas State University 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.

Criteria	Program Summary
1. Program Identification	Degree: Master of Science in Data Analytics (MS-DA) Implementation date: Fall Semester 2018 Total Semester Credit Hours: 30 CIP code: 52.1301
2. Academic Unit	College of Business Administration
3. Program Description	The College of Business Administration is proposing a new Master of Science in Data Analytics (MS-DA) degree in order to address the increasing need for data scientists. This graduate program will be offered in collaboration with the Departments of Computer Science, Economics, Mathematics, Industrial Management and Systems Engineering, Statistics, and Geography; it will focus on using advanced technologies to manipulate big data,[1] utilizing rigorous methods to interpret the data, and obtaining the business skills necessary to translate understanding into actionable organizational strategies. This collaborative curriculum will provide students with the necessary skills and knowledge to find secure, professional jobs, provide companies scientific and systematic methods of decision-making, and provide involved faculty members opportunities to improve their professional and research skills by applying techniques to real business issues.
4. Student Demand	Advisors have repeatedly indicated a need and a desire for this program stemming from consultations with students representing various fields, including computer science, statistics, mathematics, economics, engineering, and, especially, business. Accordingly, we can project a conservative demand for this proposed degree program to be 20 full-time and 5 part-time three years after implementation. The proposed program targets recent undergraduate and graduate students from different disciplines (engineering, computer science, mathematics, and science), K-State staff, and young professionals with the need to develop skills of data analytics at work. The impact on current MBA program enrollment should be minimal, as the two programs target very different groups of students, with very different curricula. Furthermore, the experience from other, similar, graduate programs suggests there will be international students applying for this degree program, as well.
5. Employment Demand	"Data analytics is a hot new career field that includes a wide range of jobs involving some combination of statistics and computing, as well as other skills" (¶ 1).[2] Forbes indicated that data analytics and statistics seem "to be making their way

[1] Rouse, M. (2017). *Big data analytics*. Tech Target Retrieved from: http://searchbusinessanalytics.techtarget.com/definition/big-data-analytics
[2] Rutgers. (2018). *Master of business and science degree: Data analytics jobs & skills in demand 2016*. Retrieved from https://mbs.rutgers.edu/articles/data-analytics-jobs-skills-demand-2016

onto every avenue in the workforce" (¶ 1).[3] A sampling of data analytics job titles includes Business Intelligence Developer, Business Intelligence Analyst, Data Scientist, Intelligence Analyst, Software Development Engineer, Data Engineer, Data Analyst, and Business Analyst.

Firms' demands for professionals with data analytics skills and knowledge are increasing (e.g., employment in all computer occupations is expected to increase by 22% by 2020, according to the U.S. Bureau of Labor Statistics)[4] and academia is responding to the demands by developing new techniques and providing data analytics courses at undergraduate and graduate levels. According to McKinsey & Company's *Big Data Report*, by 2018, the United States alone could face a shortage of 140,000 to 190,000 people with deep analytical skills. The study also projects that the U.S. needs 1.5 million data-savvy managers and analysts who can manage and analyze large datasets, and utilize the findings in their decision making.[5]

In 2016, there were 295,755 master's level jobs nationally in the most common target occupations for data analytics graduates. These jobs are expected to grow by 8.6% over the next five years. Over 1.2M jobs requesting these skills have been posted during the last three years. The national job market is quite strong for master's level graduates in data analytics. The median salary is $103,320.[6]

Education Advisory Board (EAB) recently published a webinar with additional findings on Data Analytics.[7] They did an extensive search on jobs that were not specific to data analysis or data science, but that were requesting some level of expertise in these areas for other positions. EAB reports that there were an additional 400,000 job listings that could fit this description in 2016, and that jobs requesting some level of data analytics skills, in non-data analytics professions, grew by 24% in the last three years. When considered regionally within Kansas and surrounding states, there were 591 completions and to 1723 openings in 2016; the average salary for all-experience levels slightly trails the rest of the United States at $96,820.[8] The national entry-level salary for a data analyst, depending on location, ranges from $40,475 to 78,217.[9] The median entry-level salary without bonuses or fringe benefits is $56,062.[10]

6. Comparative/ Locational Advantage

Currently, there are no other universities in the Kansas Board of Regents System offering graduate, cross-discipline degrees in data analytics. (University of Kansas offers a Graduate Business Analytics Certificate.) A comparison of master's degree analytics programs from institutions in bordering states is provided below.

University	Program	Total Hours	Remark
Rockhurst University	MS in Bus Intelligence &	30	No data science courses

[3] Kauflin, J. (July 20, 2017). Forbes. *The five most in-demand skills for data analysis jobs*. Retrieved from https://www.forbes.com/sites/jeffkauflin/2017/07/20/the-five-most-in-demand-skills-for-data-analysis-jobs/#610b8e922c7c

[4] Sieben, K. (2016 February). *Monthly Labor Review. Labor markets in 2040: big data could be a big deal for jobseekers.* U.S. Bureau of Labor Statistics. Retrieved from: https://www.bls.gov/opub/mlr/2016/article/labor-markets-in-2040-big-data-could-be-a-big-deal-for-jobseekers.htm

[5] Manyika J., et al. (May 2011). *Big data: The next frontier for innovation, competition, and productivity*, McKinsey Global Institute. Retrieved from: http://www.mckinsey.com/business-functions/digital-mckinsey/our-insights/big-data-the-next-frontier-for-innovation

[6] Sieben. Ibid.

[7] Educational Advisory Board (EAB). (2018). *Creative disruption: Data analytics capitalizing on the rise of data analytics*. Retrieved from: https://www.eab.com/research-and-insights/continuing-and-online-education-forum/events/webconferences/ 2018/creative-disruption-data-analytics

[8] Educational Advisory Board (EAB). (2018). *Creative disruption: Data analytics capitalizing on the rise of data analytics*. Retrieved from: https://www.eab.com/research-and-insights/continuing-and-online-education-forum/events/webconferences/ 2018/creative-disruption-data-analytics

[9] PayScale (2018). Retrieved from: https://www.payscale.com/research/US/Job=Data_Analyst/Salary/6d51ed9b/Entry-Level-Data-Analysis

[10] Ibid.

	Analytics		
U of Missouri - Columbia	MS in Data & Analytics	34	No data science courses
Iowa State University	MS of Business Analytics	30	No data science courses
Oklahoma State University	MS in Business Analytics	33-37	No data science courses
U of Colorado – Boulder	MS in Business Analytics	33	No data science courses

This MS-DA proposed degree program is unique, combining courses from various disciplines that cover both data science and applied analytics. Such an integrated curriculum, that offers the students flexibility in choosing courses that fit their interests and background, should be attractive to students interested in data analytics. Kansas State University is well-positioned to offer a graduate-level major in data analytics. Companies interested in cost reduction, faster and better decision-making, and gauging customer needs for new products and services are eager for skilled personnel, and K-State's proposed graduate level major will provide companies with a much needed resource, resulting in excellent, high-paying careers for our students, within the State of Kansas, nationwide, and internationally.

7. Curriculum

The Master of Science in Data Analytics degree program requires 30 hours of coursework. This includes:

- 21 hours of required courses and
- 9 hours of specified electives.

Opportunities for student interaction and research are embedded throughout the program.

8. Faculty Profile

Faculty in existing departments and colleges across the university will teach and coordinate the curriculum. There is a total of 19 tenured/tenure-track faculty members (6 for required/core courses and 13 for electives) involved in teaching this program. Because all program courses (both cores and electives) are currently offered, there are no additional course or faculty resources required.

Core courses come from five different departments: Computer Science (CS), Economics (ECON), Industrial and Manufacturing Systems Engineering (IMSE), Management (MANGT), and Marketing (MKTG). Core faculty include:

Name/Degree	Tenure Status/Title	Dept	Academic Specialization
William Hsu, Ph.D.	Tenured, Professor	CS	CIS 730, CIS 798/731, CIS 732
Yoon-Jin Lee, Ph.D.	Non-tenured, Assistant Professor	ECON	ECON 630
Shing I Chang, Ph.D.	Tenured, Professor	IMSE	IMSE 785
Roger McHaney, Ph.D.	Tenured, Professor	MANGT	MANGT 830
Bongsug Chae, Ph.D.	Tenured, Professor	MANGT	MANGT 665, MANGT 670
Jaebeom Suh, Ph.D.	Tenured, Associate Professor	MKTG	MKTG 880

Non-core faculty come from the following departments: Marketing, Accounting, Finance, Management, Geography, Economics, Computer Information Systems, Mathematics, and Statistics.

9. Student Profile	The proposed program targets recent undergraduate and graduate students from different disciplines, K-State staff seeking professional development, and young professionals with the need to develop skills of data analytics at work. The experience from other, similar graduate programs in the region also suggests there will be international students applying for this degree program. Students interested in this major typically exhibit the following characteristics[11]: strong analytics aptitude, curiosity, hypothesis-driven, motivated, and structured problem-solver. Other sources reference similar traits, and one thing they all have in common is that the student must have a passion for business and data.
10. Academic Support	Academic services at KSU, including advising, library, audio-visual, laboratory, and academic computing resources, are sufficient to support this program. All academic support available at Kansas State University and in the College of Business will be available for students and faculty in the Master of Science – Data Analytics program. Library material, including electronic subscriptions to the most relevant journals and databases, are sufficient for the proposed program. Current support staff in the College of Business (technology support consultants, instructional support specialists, development officers) is sufficient for the proposed program.
11. Facilities/ Equipment	The School of Business anticipates that the facilities are adequate to support the proposed program; no new facilities or equipment will be needed to implement this new major.
12. Program Review, Assessment, Accreditation	The MS-DA will be subject to continuous review by graduate faculty in the Graduate Innovative Curriculum Committee of the College of Business Administration. Faculty will be invited to raise issues and help solve problems. Students will be asked to complete surveys at the mid-point and conclusion of their program to help faculty address student concerns and make changes or improvements. Data from the surveys and student assessments will be aggregated, reported, and used for program refinement and improvement. The program will also be subject to accreditation review by the Association to Advance Collegiate Schools of Business (AACSB); AACSB, considered the gold-standard of business school accreditation,[12] is a non-governmental accrediting agency that oversees the standardization of collegiate schools of business and accounting nationwide. The Graduate Curriculum Committee will review assessment results annually within two weeks of the conclusion of the Spring semester. Additionally, the Graduate Curriculum Committee will review the exit survey results and assessment results during its annual meeting and provide suggestions to improve the program.
13. Costs/ Financing	Implementation year reallocated salaries for six faculty members amounts to $19,589. This cost will be covered by reallocating salary expenses from other departments. There are no new costs in salaries; there are no other operating expenses costs in the implementation year; there are no additional money requests for years two and three.

[11] Piyanka, Jain. (May 28, 2016) *5 characteristics of the analytics hero.* Forbes Retrieved from https://www.forbes.com/sites/piyankajain/2015/05/18/5-characteristics-of-the-analytics-hero/#6ae574ea176f

[12] Get Educated (2017). *AACSB accredited MBA: Pros and cons*. GetEducated.com. Retrieved from: https://www.geteducated.com/ online-mbas/94-do-i-need-an-aacsb-accredited-online-mba

New Program Proposal: Curriculum Outline
Kansas State University
Master of Science in Data Analytics

Basic Program Information

1. Title of proposed program:	Master of Science in Data Analytics
2. Degree to be offered:	Master of Science in Data Analytics (MS-DA)
3. Anticipated date of implementation:	Fall Semester 2018
4. Responsible department or unit:	College of Business
5. Total Number of Semester Credit Hours:	30
6. CIP code:	52.1301

I. Required Core Courses:

Course Name & Number		Semester Credit Hours
CIS 798/731:	Programming Techniques for Data Science & Analytics	3
ECON 630	Intro to Econometrics	3
IMSE 785:	Big Data Analytics	3
MANGT 830:	Information Technology Strategy and Application	3
MIS 665:	Business Analytics and Data Mining	3
MIS 670:	Social Media Analytics and Web Mining	3
MKTG 880:	Applied Marketing Analytics	3

Total Semester Credit Hours of Core Courses: 21

II. Specified Elective Courses: *(Students are to select three courses from the electives listed below):*

Course Name & Number		Semester Credit Hours
CIS 730:	Principles of Artificial Intelligence	3
CIS 732:	Machine Learning and Pattern Recognition	3
CIS 751:	Computer and Information Security	3
CIS 833:	Information Retrieval and Text Mining	3
MATH 725:	The Mathematics of Data and Network I	3
MATH 726:	The Mathematics of Data and Network II	3
STAT 717:	Categorical Data Analytics	3
STAT 730:	Multivariate Statistical Methods	3
ACCTG 856:	Accounting Analytics	3
ECON 686:	Economic Forecasting	3
FINAN 623:	Financial Modeling	3
GEOG 608:	Geographic Information Systems II	3
GEOG 712:	Internet GIS and Distributed Geographic Information Services	3
GEOG 728:	Topics in Programming for Geographic Analysis	3
GEOG 808:	Geocomputation	3
MANGT 662:	Procurement, Logistics and Supply Chain Design	3
MKTG 881:	Advanced Marketing Analytics	3

Total Semester Credit Hours of Elective Courses: 9

Total Semester Credit Hours for Program ……30

New Program Proposal: Fiscal Summary
Kansas State University
Master of Science in Data Analytics

Basic Program Information

1. Title of proposed program:	Master of Science in Data Analytics
2. Degree to be offered:	Master of Science in Data Analytics (MS-DA)
3. Anticipated date of implementation:	Fall Semester 2018
4. Responsible department(s) or unit(s):	College of Business
5. Total Number of Semester Credit Hours:	30
6. CIP code:	52.1301

Part I. Anticipated Enrollment	Implementation Year		Year 2		Year 3	
	Full-Time	Part-Time	Full-Time	Part-Time	Full-Time	Part-Time
A. Full-time, Part-time Headcount:	3	2	10	5	20	5
B. Total SCH taken by all students in program	75 (=3*21 + 2*6)		240 (=10*21 + 5*6)		450 (=20*21 + 5*6)	
Part II. Program Cost Projection						
A. In <u>implementation</u> year one, list all identifiable General Use costs to the academic unit(s) and how they will be funded. In subsequent years, please include only the additional amount budgeted.						
	Implementation Year		Year 2		Year 3	
<u>Base Budget</u> Salaries	$19,589.00 * *(reallocated; no new cost)*		0		0	
OOE	0		0		0	
Total	$19,589.00 * *(reallocated; no new cost)*		0		0	

Notes:

* Costs for salaries for six faculty members will be reallocated from other programs/departments.

- No new courses are offered; no new faculty lines are required. There are no new costs in salaries; there are no other operating expenses costs in the implementation year; there are no additional money requests for years two and three.

Act on Creation of College of Applied Studies and School of Education – Wichita State University

Summary

Universities may seek Board of Regents' approval of a new stand-alone college/school, as outlined in the Kansas Board of Regents Policy Manual (II.A.7.c.ii.). WSU submitted a request for approval of a new College of Applied Studies that will house the proposed School of Education as well as the ongoing Department of Counseling, Educational Leadership, and Educational and School Psychology; the Department of Human Performance Studies; and the Department of Sport Management. The proposed reorganization does not require any new faculty or staff. Staff recommends approval.

Background

Wichita State University is seeking to reorganize its College of Education and create a new College of Applied Studies. This proposed structure includes taking the Department of Curriculum and Instruction and changing its name to the School of Education. The other three departments formerly in the College of Education and the newly named School of Education will all be housed in the newly created College of Applied Studies, as detailed below.

Current Structure	Action	Proposed Structure
College of Education	Creates College of Applied Studies	College of Applied Studies
-Dept. of Curriculum & Instruction	Dept. name changed to School of Education	-School of Education
-Dept. of Counseling, Educational Leadership, and Educational & School Psychology	N/A	-Dept. of Counseling, Educational Leadership, and Educational & School Psychology
-Dept. of Human Performance Studies	N/A	-Dept. of Human Performance Studies
-Dept. of Sport Management	N/A	-Dept. of Sport Management

Rationale for Change

This proposed change will resolve constituents' confusion as to where some programs are housed: for example, Sport Management, Athletic Training, and Exercise Science are all housed in the College of Education; many fail to see a connection between these programs and a College that is known for teacher preparation.

The title of College of Applied Studies will better reflect the range of programs and highlight an essential facet of all the College's programs, that of applied learning. Changing the name of the Department of Curriculum and Instruction to the more prestigious School of Education more clearly communicates the varied programs offered in the department.

Minor expenses necessary to make the changes proposed (e.g. signage, stationery, etc.) will be provided by the College. No new staff or faculty are required for the proposed reorganization.

Recommendation

Staff recommends approval.