

New Program Request Form

CA1

General Information

Institution submitting proposal	Kansas City Kansas Community College
Name, title, phone, and email of person submitting the application <i>(contact person for the approval process)</i>	Mr. Jerry Pope Interim Vice-President of Academic Affairs (913) 288-7634 jpope@kckcc.edu
Identify the person responsible for oversight of the proposed program	Mrs. Cheryl Runnebaum Dean of Career and Technical Education (913) 288-7811 crunnebaum@kckcc.edu
Title of proposed program	Surveying Technology
Proposed suggested Classification of Instructional Program (CIP) Code	15.1102
CIP code description	A program that prepares individuals to apply mathematical and scientific principles to the delineation, determination, planning and positioning of land tracts, land and water boundaries, land contours and features; and the preparation of related maps, charts and reports. Includes instruction in applied geodesy, computer graphics, photointerpretation, plane and geodetic surveying, mensuration, traversing, survey equipment operation and maintenance, instrument calibration, and basic cartography.
Standard Occupation Code (SOC) associated to the proposed program	17-1022 and 17-3031
SOC description	(17-1022) Make exact measurements and determine property boundaries. Provide data relevant to the shape, contour, gravitation, location, elevation, or dimension of land or land features on or near the earth's surface for engineering, mapmaking, mining, land evaluation, construction, and other purposes. (17-3031) Perform surveying and mapping duties, usually under the direction of an engineer, surveyor, cartographer, or photogrammetrist, to obtain data used for construction, mapmaking, boundary location, mining, or other purposes. May calculate mapmaking information and create maps from source data, such as surveying notes, aerial

	photography, satellite data, or other maps to show topographical features, political boundaries, and other features. May verify accuracy and completeness of maps.
Number of credits for the degree and all certificates requested	33 credits – Certificate B 61 credits – AAS
Proposed Date of Initiation	Fall 2021
Specialty program accrediting agency	Applied and Natural Science Accreditation Commission (ANSAC)
Industry certification	Certified Survey Technician Level 1 Surveyor License

Signature of College Official Jerry Pire Date 2/18/21

Signature of KBOR Official _____ Date _____

Narrative

Program Description

The land surveying industry is in great need of licensed surveyors due the current workforce reaching or approaching retirement age. The Kansas Board of Technical Professions, (KSBTP), is an administrative agency created by Kansas statute K.S.A. 74-7001. The statute was established by the Legislature to create the Board of Technical Professions by combining the Engineering Examiners Registration Board, the Architects Registration Board, and the Landscape Architects Registration Board. K.S.A. 74-7004; provides that the purpose of the Board of Technical Professions is to establish and maintain a high standard of integrity, skills and practice in the technical professions and to safeguard the safety, life, health, property and welfare of the public. The Surveying Technology program is guided by the statutes of the State of Kansas and the rules and regulations of the Kansas State Board of Technical Professions which licenses professional surveyors.

KSBTP requires applicants for surveying licensure to obtain an AAS containing curriculum outlined and approved by the Board or complete 30 technical credits in required coursework and a minimum of 5 years work experience in various aspects of surveying. Kansas City Kansas Community College (KCKCC) was made aware of the need for not only licensed surveyors but an institution that would offer the curriculum required. KCKCC has been working closely with land surveying professionals and the industry to address this need. At the present time, there is no institution in the state of Kansas that completely offers a program to meet this need.

The proposed program will have two levels of degrees. KCKCC will offer a certificate which will meet the required 30 credit hours of technical credits for those individuals currently in the industry who have met the required work experience and need the technical credits in order to be eligible to apply for licensure. KCKCC will also offer an AAS degree for those individuals who do not have any industry experience but want to get into the surveyor profession.

Students will learn: basic surveying principles, mathematics, operations of land surveying, traverse and other computations used in route surveying; boundary surveying, topographic mapping and construction surveying. Students will be able to perform land records research and learn the applicable legal principles of property boundary surveying. Upon satisfactory completion of this program, the student will have earned either a certificate B or an AAS in Surveying Technology.

The Applied and Natural Science Accreditation Commission of ABET (www.ABET.org) is the accrediting agency for the Surveying Technology (Geospatial Planning) degree program. KCKCC will apply for accreditation when able. According to the guidelines, programs requesting an initial accreditation review must have at least one graduate prior to the academic year when the on-site review occurs. Therefore, KCKCC will not be eligible to apply for accreditation for a minimum of one year after program approval but would opt to wait at least two years in order to prepare the necessary data for application.

Catalog Description

This program will teach students the basic surveying principles, mathematics, and operations of land surveying. Students will learn traverse and other computations used in route surveying, boundary surveying, topographic mapping and construction surveying. Students will be able to perform land records research and learn the applicable legal principles of property boundary

surveying. Upon satisfactory completion of this program, the student will have earned either Certificate B or an AAS in Surveying Technology.

Program Objectives

1. Prepare students with a holistic education for a long-term career as a responsible licensed professional in land surveying with educational content that includes: the science of making measurements; proper use of technology; ability to perform analysis on and adjust surveying measurements; understand the legal aspects of boundary surveying including retracement of original surveys; interpret, write and survey land descriptions; and understand the basic principles of managing a surveying business.
2. Have an active, engaged professional advisory committee that aligns the educational objectives such that the program reflects changes in technology, regulatory laws, rules and regulations and complies with professional standards of conduct.
3. Partner with professionals, service companies and technology providers in the surveying industry as well as government entities to enable student internships, employment opportunities, engagement with the public, and student scholarships and grants.
4. Graduates will, upon graduation, be prepared to take and pass the NSPS Level I Certified Survey Technician exam.

Program Admissions Requirements

Admission to the Surveying Technology certificate program is based on successful completion of the following Admission Requirements and the number of students admitted may vary based on classroom/lab size restrictions and/or teacher-to-student ratio.

1. Apply for admission to Kansas City Kansas Community College (KCKCC).
2. Take the college placement exam and score the equivalent of Comp I or provide transcript of successful completion of Comp I course.
3. Successfully complete the prerequisite requirement of College Algebra and Trigonometry.
4. Make an appointment with an Academic Advisor for enrollment.
5. Submit a high school transcript (or GED) with graduation date.
6. All official college transcripts evaluated and on file in Records Office with GPA of 2.0 or higher.

Admission to the Surveying Technology AAS program is based on successful completion of the following Admission Requirements and the number of students admitted may vary based on classroom/lab size restrictions and/or teacher-to-student ratio.

1. Apply for admission to Kansas City Kansas Community College (KCKCC).
2. Take the college placement exam and test into Comp I and College Algebra or provide transcript of successful completion of Comp I course.
3. Successfully complete the prerequisite requirement of College Algebra.
4. Make an appointment with an Academic Advisor for enrollment.
5. Submit a high school transcript (or GED) with graduation date.
6. All official college transcripts evaluated and on file in Records Office with GPA of 2.0 or higher.

Transfer Students:

Admission of transfer students to the Surveying Technology (Geospatial Planning) certificate and AAS program are contingent upon their meeting the following requirements:

- Regular admission and good standing at a regionally accredited technical certificate or degree granting institution and proper completion of applications and related procedures as stated for new students.
- All official college transcripts evaluated and on file in Records Office with a GPA of 2.0 or higher.
- Meet with an Advisor for an advising session and enrollment.

Graduation Requirements:

- Complete program requirements with a 2.0 GPA or higher
- No outstanding obligations (tuition, bookstore, library, etc.)

To receive a certificate or AAS degree, students must pass all required coursework, submit required transcripts for transfer credit and meet all academic, financial or other obligations required for their program of study. To be eligible for graduation, students must have an overall GPA of at least a 2.0. KCKCC urges students to monitor their educational progress. Prior to the end of the semester, students must meet with an Academic Advisor to complete a graduation check-off form that ensures all requirements will be finished prior to the anticipated graduation date

Demand for the Program

- Using the Kansas Department of Labor's Long Term Occupational Outlook, (<https://klic.dol.ks.gov>) identify employment trends and projections: occupational growth, occupational replacement rates, estimated annual median wages, and typical education level needed for entry.

The following information was gathered using the Kansas Department of Labor's Long Term Occupational Outlook (<https://klic.dol.ks.gov>):

Surveyors (17.1022)

Growth rate:	2018 jobs: 478 2028 jobs: 507 Change numerical: 29 Change percentage: 6.1%
Annual Median Wage:	\$54,690.00
Typical Education level needed:	Bachelor's

Surveying and Mapping Technicians (17.3031)

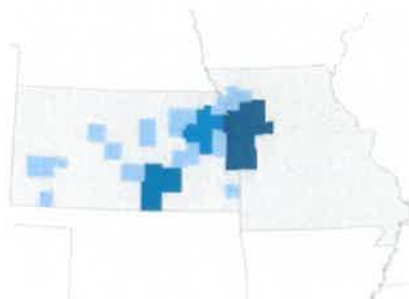
Growth rate:	2018 jobs: 458
	2028 jobs: 483
	Change numerical: 25
	Change percentage: 5.5%
Annual Median Wage:	\$46,570.00
Typical Education level needed:	High school diploma or equivalent

As shown by the Kansas Department of Labor’s Long Term Occupational Outlook, the “typical education level needed” for a Surveyor is a Bachelor’s degree. The advisory board for the Surveying Technology program agree that: 1) an individual who has obtained the educational level provided by this proposed program 2) and who has worked in the field would (following the KSBTP’s recommended education required to be accepted to test for licensure) be well-qualified for a position in the industry. The Kansas State Board of Technical Professions (KSBTP) accepts applications for licensure on a case-by-case basis. The KSBTP will accept applicants who worked in the industry and received college credit for the coursework listed in the certificate level program layout.

The labor demand for both the Surveyor and, Survey and Mapping Technician occupations is higher in the Kansas City region. Utilizing data from Emsi, the following maps show there is a higher concentration of job postings in the Kansas City region than anywhere else in the state:

17-1022 Surveyors

Job Postings Regional Breakdown



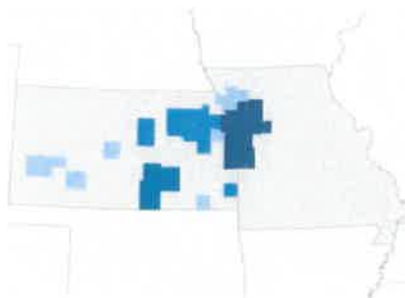
MSA
Kansas City, MO-KS
Wichita, KS
Topeka, KS
Manhattan, KS
Garden City, KS

[Jump to Job Postings by Location](#) ■■■

Unique Postings (Oct 2018 - Oct 2020)
Kansas City, MO-KS 108
Wichita, KS 52
Topeka, KS 33
Manhattan, KS 10
Garden City, KS 6

17-3031 Survey and Mapping Technicians

Job Postings Regional Breakdown



MSA
Kansas City, MO-KS
Wichita, KS
Topeka, KS
Salina, KS
Pittsburg, KS

[Jump to Job Postings by Location](#) ■■■

Unique Postings (Oct 2018 - Oct 2020)
Kansas City, MO-KS 105
Wichita, KS 21
Topeka, KS 7
Salina, KS 6
Pittsburg, KS 5

Many letters of support were received showing the need and how important it is for the state of Kansas to have a program that offers the required curriculum in order for someone to become a licensed surveyor.

The **Kansas Department of Transportation** states in their letter of support for program approval that with new legislation recently passed for the IKE Highway Program along with public projects by cities and counties across the state, the need for surveying staff is amplified. The letter also stated that between the years 2000 and 2019, according to the Kansas State Board of Technical Professionals, there were only 32 state licenses issued for professional surveyors in the state of Kansas. There is no other higher education institution in Kansas that offers this program.

BHC Rhodes has stated the need for licensed Surveyors is growing due to the aging workers within the industry. Their support is shown by serving on the program advisory committee and playing a major role in making sure the curriculum guidelines are adhered to. They have also pledged their support by offering employment and other opportunities for students to practice their skills.

Seiler Instrument & Manufacturing Co., Inc. has offered their support by providing both in person training and long-term loans of the latest Trimble Surveying systems for the students to learn and practice with.

HubTack, Inc. has stated they will show support to KCKCC by providing scholarships through the state Surveyors Association as well as providing free access to all the services they have available to any active Surveyor student. They have been doing this for Missouri and Oklahoma and were shocked to find that state of Kansas did not have an accredited surveyor's education program.

The **Kansas Society of Land Surveyors** states their mission statement includes "...education and land surveyors". Their support is shown in funding scholarships provided by the KSLC Charitable Foundation and by promoting the program through advertising in its publications and newsletters. In a separate letter written by the **Kansas Society of Land Surveyors Charitable Foundation**, the need for licensed Surveyors is increasing due to the retirement of current Surveyors and not being able to find qualified employees due to lack of skill set.

The **Savoy Company**, who offers land surveying services in Kansas and Oklahoma, state they would show support by offering internships and other opportunities for students to practice their skills in a real-world environment.

Kansas City Kansas Community College does not have any formal partnerships specific to the Surveyor program at this time.

Duplication of Existing Programs

There are no other institutions in the state of Kansas that offer this program; therefore, collaboration could not be pursued.

proximity to relevant text discussions on the World Wide Web. Pre-requisite: None Effective Spring 2005, if you are a Business major, you must have a “C” or better in all business courses to meet the requirements of the business degree program.

OR

BUSN-0211 Business Communications 3cr
 Business Communications emphasizes correct business procedures, English, and psychology as they are related to business letters, reports, and other forms of official communication. Pre-requisite: Completion of ENGL-0101 (Composition I) with a passing grade. Keyboarding skills are also recommended. Effective Spring 2005, if you are a Business major, you must have a “C” or better in all business courses to meet the requirements of the business degree program.

Certificate: Surveying Technology

Semester 1:

Course ID	Course Name	Credit
SURV 0101	Surveying I	3
BUSN 0104	Small Business Management	3
ENGR 0106	Computer Aided Drafting (CAD)	3
	Total Credits	9

Semester 2:

Course ID	Course Name	Credit
SURV 0102	Surveying II	3
SURV 0104	Global Navigation Satellite Systems (GNSS)	3
BUSN 0101	Accounting I	3
SURV 0202	Survey CAD	3
	Total Credits	12

Semester 3:

Course ID	Course Name	Credit
SURV 0106	Geographic Information System (GIS)	3
SURV 0108	Boundary Control	3
SURV 0204	Advanced Survey Concepts	3
SURV 0110	Real Property Law	3
	Total Credits	12

EXIT POINT FOR Surveying Technology: 33 Credits

AAS in Surveying Technology:**Semester 1:**

Course ID	Course Name	Credit
ENGR 0106	Computer Aided Drafting (CAD)	3
ENGL 0101	Composition	3
MATH 0112	Trigonometry	3
SURV 0101	Surveying I	3
BLUE 0101	Freshman Seminar	1
	History Elective	3
	Total Credits	16

Semester 2:

Course ID	Course Name	Credit
ENGL 0102	Composition II	3
SURV 0102	Surveying II	3
BUSN 0101	Accounting I	3
SURV 0202	Survey CAD	3
SPCH 0151 OR SPCH 0201	Public Speaking OR Interpersonal Communication	3
	Total Credits	15

Semester 3:

Course ID	Course Name	Credit
BUSN-0113 OR BUSN-0211	Marketing OR Business Communications	3
SURV 0108	Boundary Control	3
PHIL 0206	Ethics	3
BUSN 0104	Small Business Management	3
SURV 0104	Global Navigation Satellite Systems (GNSS)	3
	Total Credits	15

Semester 4

Course ID	Course Title	Credits
SURV 0204	Advanced Survey Concepts	3
NASC 0130 OR NASC 0186	Introductory Physics OR Physical Geology and Lab	3
BUSN-0108	Human Relations	3
SURV 0110	Real Property Law	3
SURV 0106	Geographic Information System (GIS)	3
	TOTAL CREDITS	15

AAS in Surveying Technology Total Credits: 61

Accreditation

The Applied and Natural Science Accreditation Commission of ABET (www.ABET.org) is the accrediting agency for the Surveying Technology degree program. KCKCC will apply for accreditation when able. According to the guidelines, programs requesting an initial accreditation review must have at least one graduate prior to the academic year when the on-site review occurs. This means that KCKCC will not be eligible to apply for accreditation for a minimum of one year after program approval but would opt to wait at least two years in order to prepare the necessary data for application.

Faculty

The following qualifications are required to teach the Surveying Technology program:

- Professional registration as land surveyor or professional engineer
- Seven years of professional practice performing boundary, construction, topographic and engineering surveys
- Undergraduate degree (B.S.) in surveying, engineering or related technical area
- A valid driver's license and ability to drive college vehicles.

Cost and Funding for Proposed Program

BHC Rhoades began the effort to create a sustainable program to produce quality Surveyors in an effort to replace the retiring Surveyor population. They brought other companies and the Kansas Society of Land Surveyors to the conversations in a joint effort of creating a quality program. BHC Rhoades fostered the relationship with Seiler Instrument & Manufacturing Co., Inc. and secured the loan of Survey equipment valued at \$30,000 per piece, free of charge to the college. Other partners have offered their services to intern students, employ students upon completion, offer scholarships and offer in-kind donations of tools and supplies.

Initial costs for the program are \$225,145. The \$99,145 for faculty is coming from reallocated funds of personnel positions that are no longer needed. Seiler Instrument & Manufacturing Co., is loaning the equipment needed valued at \$30,000 per piece (4 pieces), free of charge to the college. This leaves the final items that include \$2,500 for tools/supplies; \$500 for instructional supplies/materials; and the \$3,000 for software. The \$6,000 needed for those items are coming from the 'New Program Cost Center' to stand up new programs.

Program Review and Assessment

KCKCC has a comprehensive program review cycle and assessment process. Programs are placed on a program review schedule and will be reviewed in 4-year cycles. Each program completes a self-study with the help of a mentor, presents their findings to the program review committee, discussion of an action plan, and implementation of a final action plan to address challenges and maintain strengths of the program. Programs submit annual reports on the progress of the review with any changes, updates, and new data results. The purpose of the committee is to make recommendations for improvement and/or to sunset programs.

The college has adopted TaskStream as the online management tool for gathering, updating, and maintaining assessment items. The Assessment Team at KCKCC works with each program to assess program outcomes, create assessment plans, report assessment findings and create action plans. The process of assessment occurs annually, at the course and program level, and is monitored by the academic deans and the Office of Assessment

Program Approval at the Institution Level

- Provide copies of the minutes at which the new program was approved from the following groups:
 - Program Advisory Committee
(including a list of the business and industry members)
 - Curriculum Committee
 - Governing Board
(including a list of all Board members and indicate those in attendance at the approval meeting)

Submit the completed application and supporting documents to the following:

Director of Workforce Development
Kansas Board of Regents
1000 SW Jackson St., Suite 520
Topeka, Kansas 66612-1368

KBOR Fiscal Summary for Proposed Academic Programs

CA-1a Form (2020)

Institution: Kansas City Kansas Community College

Proposed Program: Surveying Technology

IMPLEMENTATION COSTS					
Part I. Anticipated Enrollment			Implementation Year		
Please state how many students/credit hours are expected during the initial year of the program?					
			Full-Time	Part-Time	
A. Headcount:			10—30 credits	10—15 credits	
Part II. Initial Budget			Implementation Year		
A. Faculty			Existing:	New:	Funding Source:
Full-time	#1	\$	\$69,145		Tuition
Part-time/Adjunct	#1	\$30,000	\$		Tuition
		Amount	Funding Source		
B. Equipment required for program		\$120,000	Seiler Instrument & Manufacturing Co., Inc; loaning the equipment at no charge to KCKCC.		
C. Tools and/or supplies required for the program		\$2,500	Reallocation of resources from a sunsetted program.		
D. Instructional Supplies and Materials		\$500	Reallocation of resources from a sunsetted program.		
E. Facility requirements, including facility modifications and/or classroom renovations		\$0			
F. Technology and/or Software		\$3,000	Reallocation of resources from a sunsetted program.		
G. Other (Please identify; add lines as required)					
Total for Implementation Year		\$225,145			
PROGRAM SUSTAINABILITY COSTS (Second and Third Years)					
Part I. Program Enrollment			Second and Third Years		
Please state how many students/credit hours are expected during the first two years of the program?					
			Full-Time	Part-Time	
A. Headcount:			16—60 credits	16—30 credits	
Part II. Ongoing Program Costs			First Two Years		
A. Faculty			Existing:	New:	Funding Source:
Full-time	#1	\$69,145	\$		Tuition, fees
Part-time	#1	\$30,000	\$		Tuition, fees
		Amount	Funding Source		
B. Equipment required for program		\$0			
C. Tools and/or supplies required for the program		\$1,000	Tuition, fees		
D. Instructional Supplies and Materials		\$500	Tuition, fees		
E. Facility requirements, including facility modifications and/or classroom renovations		\$0			
F. Technology and/or Software		\$3,000	Tuition, fees		
G. Other (Please identify; add lines as required)					
Total for Program Sustainability		\$103,645			

KBOR Fiscal Summary for Proposed Academic Programs

CA-1a Form (2020)

Please indicate any additional support and/or funding for the proposed program:

BHC Rhoades began the effort to create a sustainable program to produce quality Surveyors in an effort to replace the retiring Surveyor population. They brought other companies and the Kansas Society of Land Surveyors to the conversations in a joint effort of creating a quality program. BHC Rhoades fostered the relationship with Seiler Instrument & Manufacturing Co., Inc. and secured the loan of Survey equipment valued at \$30,000 per piece, free of charge to the college. Other partners have offered their services to intern students, employ students upon completion, offer scholarships and offer in-kind donations of tools and supplies.

Initial costs for the program are \$225,145. The \$99,145 for faculty is coming from reallocated funds of personnel positions that are no longer needed. Seiler Instrument & Manufacturing Co., is loaning the equipment needed valued at \$30,000 per piece (4 pieces), free of charge to the college. This leaves the final items that include \$2,500 for tools/supplies; \$500 for instructional supplies/materials; and the \$3,000 for software. The \$6,000 needed for those items are coming from the 'New Program Cost Center' to stand up new programs.

Once the program is established, tuition and fees will cover the faculty costs as well as some equipment; donations from industry partners, and Perkins funding.

Submit the completed application and supporting documents to the following:

Director of Workforce Development
Kansas Board of Regents
1000 SW Jackson St., Suite 520
Topeka, Kansas 66612-1368

LETTERS OF SUPPORT

Survey Advisory Committee

	A	B	C	D
	Name	Company	Email	Telephone
1				
2	Larry Graham		gammmonreel@gmail.com	816-985-1830
3	Aaron Davis		psurveyor1368@gmail.com	620-794-4320
4	Will Clevenger		wkclevenger@rarverusa.com	316-833-8426
5	David Lee		dlee@franklincoks.org	
6	James Meis		jmeis@driggsdesign.com	785-650-9864
7	Jason Johnson		j.johnson1410@stbcglobal.net	785-243-5277
8	Will Anderson	BHC Rhodes	wil.anderson@bhrc.com	913-904-4743
9	Evelyn Cable	KSLS	sectionlines@ksls.com ; evelyn.cable@ksls.com	785-826-8958
10				
11	Dr. Joe Paiva	Geolearn	joepaiva@geo-learn.com	
12	David Robinson	KCKCC	d robinson@kckcc.edu	



Kansas City Kansas Community College
Surveyor – Geospatial Planning – Survey Technician/CIP 15.1102
Advisory Committee Meeting via Zoom
April 29, 2020 5:30 PM

Members in Attendance: Larry Graham, Aaron Davis, David Lee, James Meis, Dr. Joe Paiva, David Robinson, Evelyn Cable, Wil Anderson, Cheryl Runnebaum, Lori Chaffin, Kristin Povlonis

Members Absent: Jason Johnson, Will Cleverger

ITEM	DISCUSSION	ACTION
Introduction of Committee Members – 5:34 PM	All those present introduced themselves and stated their relationship to the Surveyor program.	No action.
Orientation to Advisory Committee	<p>Cheryl Runnebaum, Dean of Career and Technical Education at KCKCC, thanked committee members for their help in getting this program moving. She stated that the necessary paperwork has almost been completed so it can be forwarded to the college for approval. Part of the paperwork requires establishing an Advisory Committee and industry support. An Advisory Committee is needed for Kansas Board of Regents (KBOR) which approves the programs on the state level. Industry support is a must as KBOR doesn't want to pay for programs without it. This program is associated with an in-demand job field and high wages.</p> <p>All new program paperwork must be completed by August. The Advisory Committee must meet twice before that deadline. The purpose of the Advisory Committee is for support of students and the program to make sure the program is designed to meet the needs of the industry. Cheryl added that support can come in different ways such as financial support, legislative support, networking/recruiting, and marketing. She said KBOR and KCKCC are looking at how the groups are supporting each other to</p>	<p>Larry Graham will send ABET criteria documents and policy and procedure manual to Cheryl Runnebaum.</p> <p>Wil Anderson will send listing of credentials/certifications to Lori Chaffin.</p>

	<p>produce successful Surveyor candidates for the industry and successful graduates for the college to count.</p> <p>Larry Graham asked if the program will be accredited. Lori Chaffin, KCKCC, stated it hasn't something that has been discussed yet and wasn't sure what agency accreditation would come from. She said she contacted the Kansas State Board of Technical Professions and it stated it did not accredit programs. Lori said in the state paperwork there are questions pertaining to outside accreditation and if that is being sought, and if not, why.</p> <p>Larry stated that ABET is the accreditation board for engineering and technology and this program would fall under it. This would fall under the Applied Natural Science Accreditation Committee (ANSAC). It involves a 2-year degree in Geospatial or similarly named programs. He added that if the program has a specific curriculum in addition to the general education requirements, the Kansas Board of Technical Professionals would approve it as entry into the engineering profession through the state of Kansas without ABET accreditation. ABET is a very long process and Larry said he would be willing to help with that if it was decided to seek accreditation.</p> <p>Dr. Joe Pavia added that it is not a requirement that students graduate from an ABET accredited program to be a surveyor. He said many 2-year colleges have opted not to seek ABET accreditation because of the paperwork required, relying on adjuncts to complete the process, and the high cost. But he encouraged the group to keep ABET accreditation a future goal. Cannot seek it until the program has graduates.</p> <p>The committee discussed what credentials/certifications could be given as part of the program. Suggestions included OSHA and the Certified Surveyor Technician (CST) certifications.</p> <p>Larry stated that you start with an Advisory Committee but then need to identify your constituents – students, faculty, industry, employers, and alumni/graduates.</p>	<p>Vote on making the program a certificate program and degree program at next meeting.</p>
<p>Planning Steps</p>	<p>KBOR and HLC are accrediting bodies for the college. KCKCC was planning to offer a Geospatial Planning AAS. Dr. Paiva asked if approval of that</p>	

	<p>degree would allow students to get a certificate if they only completed certain content.</p> <p>The committee discussed whether an AAS was needed versus offering just a certificate or both. There was discussion on different backgrounds of candidates such as those who have a Bachelor's degree and just needing the certificate courses (not gen ed courses) and those with years of experience in the field. Need to also market this to high school students.</p> <p>Cheryl stated that the program needs to be a complete package of exactly what is needed to put qualified people out in the market to be hired.</p> <p>Cheryl proposed offering this program as a certificate and AAS with two exit points.</p>	
<p>Curriculum</p>	<p>The program layout (30 credits for technical courses) and the other 30 credits of the general education courses needed for the AAS were sent to the committee to review. A syllabi was also sent but has not been finalized.</p> <p>Lori stated that a course outline and learning outcomes need to be completed.</p>	<p>All committee members review program layout and syllabi and offer suggestions for changes or additions. Send to David Robinson and Dr. Paiva, who work in education, and they will review and send to Lori Chaffin.</p> <p>Industry committee members should review CAD courses and offer suggestions for changes or additions. Send to Lori Chaffin.</p> <p>Lori Chaffin will review adding OSHA 10 and 30 to the program course.</p>
<p>Hybrid Model</p>	<p>Discussion centered on what type of learning should be offered such as online learning and hands-on lab work. Because students may be from many different locations, offering a remote lab component with a mentor is being reviewed.</p> <p>If offered to high school students, it would have to be an on-ground course because that is a requirement for high schools.</p>	<p>No action.</p>
<p>Equipment and Supply Requirements</p>	<p>Committee members discussed equipment requirements needed for on-ground labs. Larry discouraged any heavy investment in survey equipment because some companies will loan/lease equipment on a semester basis (Seller Instrument). The equipment changes so quickly so</p>	<p>Dr. Paiva will send Cheryl Runnebaum pricing paperwork for equipment and supplies.</p>

	<p>it is best to lease. If a student is doing a remote lab, the mentor would have the equipment.</p> <p>Wil Anderson added that Seiler and Topcon Solutions would agree to provide equipment to the program. Need to get leasing paperwork.</p> <p>The committee discussed textbooks, but Cheryl said she will leave that up to the instructors.</p>	<p>Wil Anderson will request letters of program support from Seiler Instrument and Topcon Solutions needed for the state paperwork.</p>
Marketing	<p>There was discussion of marketing to non-traditional students who are in the workforce, using word of mouth testimonials from those in classes, and targeting high school and home schooled students.</p> <p>The National Society of Professional Surveyors (NSPS) and the National Council of Examiners and Engineering Surveying (NCEES) has marketing materials that can be used to promote surveying to high school students. Cheryl added that the college already has middle school and high school events where the program can be featured.</p> <p>It was suggested exhibiting at different vocational counselor conferences and attending Kansas Society of Land Surveyors (KSLS) events.</p>	<p>Explore targeted marketing options at next meeting.</p> <p>Aaron Davis sent the NSPS CST brochure to the committee.</p>
Election of Chair	<p>James Meis nominated Aaron Davis as chair; it was seconded by David Lee. Aaron Davis was approved as the chair.</p>	<p>Aaron Davis was elected as the committee chair.</p>
Next Meeting (Via Zoom)	<p>All program paperwork must be completed by August for KCKCC. The syllabi must be completed by that time.</p>	<p>Next meeting is scheduled for Wednesday, May 20, 2020 at 5:30 PM.</p>
Adjourn	<p>The meeting was adjourned at 6:49 PM.</p>	



Kansas City Kansas Community College
Surveyor – Geospatial Planning – Survey Technician/CIP 15.1102
Advisory Committee Meeting via Zoom
May 20, 2020 5:30 PM

Members in Attendance: Aaron Davis (chair), Larry Graham, David Lee, James Meis, Dr. Joe Paiva, David Robinson, Wil Anderson, Will Clevenger, Lori Chaffin, Kristin Povlonis

Members Absent: Jason Johnson, Evelyn Cable, Cheryl Runnebaum

ITEM	DISCUSSION	ACTION
<p>Welcome and Introduction of Committee Members – 5:35 PM</p>	<p>Chair Aaron Davis welcomed everyone to the Advisory call.</p>	<p>No action.</p>
<p>Approve April 29, 2020 Minutes</p>	<p>Motion to accept the minutes – David Robinson, James Meis second.</p>	<p>April minutes were approved with no changes.</p>
<p>Program Layout</p>	<p>The committee members reviewed the Program Layout which would need to be changed to make it a fit for the Geospatial Surveyor Program. Lori Chaffin, KCKCC, explained that sections highlighted in yellow need to be added or double checked and the sections highlighted in red are items that she still needs. Lori said the program objectives are standard for most programs but there needs to be some related to geospatial which she needs help with those. Dr. Paiva suggested that those items can come from the course descriptions. Lori added that these relate to the overall program – what is expectation of the student or what should the student expect to know when they get done with the program. Dr. Paiva felt it was important to add items relevant to professional practice. James Meis suggested looking at the application from the Kansas Board of Technical Professions where it lists what you need for progressive land surveying.</p>	<p>David Robinson, David Lee, Aaron Davis, Dr. Joe Paiva will work as a subcommittee to work on curriculum via a Zoom call. David Lee will set up. James Meis will email any further comments that he has on it. Aaron will be the chair of the subcommittee.</p>

	<p>Lori stated that some courses have prerequisites and those need to be verified that those are correct. She added that the program layout has to be provided to the Kansas Board of Regents (KBOR) and even though there will be students who take 1-2 courses per semester, what is submitted should reflect if a student should come full time. Need a program layout that just contains the technical courses.</p> <p>Lori said when the paperwork is finalized, it will need to show the pathway students take to receive a certificate and the pathway students take to receive an Associate degree and how long will either pathway take to complete.</p> <p>After discussing the two different pathways and what general education and technical courses need to be taken, it was decided a subcommittee would review the curriculum in a separate call to finalize. Larry Graham who sits on the Board of Technical Professions stated the program layout works and explained why some of the courses are offered in that program layout.</p> <p>Dr. Paiva reviewed his proposed changes to the Program Layout which will be further discussed by the subcommittee.</p> <p>It was also discussed that the Kansas Society of Land Surveyors (KCLS) should encourage non-licensed employees to get a certificate and employers should provide incentives to complete a certificate.</p> <p>The issue of internships was discussed as part of the program. Larry said internships are not necessary as many people seeking certificates will most likely have "experience" already in the surveying field, which equates to an internship.</p>	
<p>Partnership Support</p>	<p>Lori asked if the Letters of Support had been received yet. Wil Anderson is working on securing those. Lori added that is we are going to call this a "partnership", the company would need to agree to have a formal agreement with KCKCC where it spells out what the company plans to give the college and what it wants in return from the college. Wil stated that TopCon would like to provide equipment and Dr. Paiva stated that Seiler does not usually do partnerships but instead does leasing agreements. Both companies are interested in having insurance for the equipment.</p>	<p>Wil Anderson will get letters of support from Seiler Instruments, TopCon Solutions, and KCLS.</p>
<p>KBOR – Next Steps</p>	<p>Lori stated that once the program curriculum is complete, it will be put through the KCKCC Academic Policy Committee and the Board of Trustees. The application</p>	<p>Cheryl Runnebaum will complete financial summary report.</p>

	<p>will be sent to KBOR after it is approved by KCKCC. KBOR will review and request any changes after that time. She added that the application needs to go to the KCKCC committee by August. She will need everything by late June/early July in order to put the application and curriculum in the proper format for submission. Cheryl Runnebaum, Dean of Career and Technical Education at KCKCC, will need to complete the financial summary report.</p>	
Other Items	None.	
Next Meeting (Via Zoom)		Next meeting is scheduled for Wednesday, June 10, 2020 at 5:30 PM.
Adjourn	The meeting was adjourned at 6:44 PM.	



Kansas City Kansas Community College
Surveyor – Geospatial Planning – Survey Technician/CIP 15.1102
Advisory Committee Meeting via Zoom
June 10, 2020 5:30 PM

Members in Attendance: Aaron Davis (chair), Larry Graham, David Lee, James Meis, Dr. Joe Paiva, David Robinson, Will Anderson, Will Clewenger, Cheryl Runnebaum, Lori Chaffin, Kristin Povilonis

Members Absent: Jason Johnson, Evelyn Cable

ITEM	DISCUSSION	ACTION
Welcome and Introduction of Committee Members – 5:30 PM	Chair Aaron Davis welcomed committee members.	No action.
Approve May 20, 2020 Minutes	Motion to accept the minutes was made by Wil Anderson/David Lee seconded. Larry Graham stated any opinions expressed by him are his own and not representative of the Kansas State Board of Technical Professions of which he is a member.	May Minutes were approved with no changes.
Program Layout	David Lee explained that the subcommittee looking at program curriculum held three video meetings dividing the classes up into four each night. He felt that the subcommittee had developed a good slate of courses. The group started with a rough draft of courses and the members reviewed each course and added to the curriculum. David thanked Dr. Joe Paiva for helping them get on the right track. The technical courses were modified from where they started. For example, Survey I and II are the same but the information contained in the courses was modified to what the subcommittee felt should be taught. David said the biggest change was the CAD courses. The subcommittee decided to make CAD I a pre-requisite for CAD II, which is now called Survey CAD (civil drafting class that KCKCC already offers). The GIS component of the Survey CAD class was eliminated since it is already part of the technical courses.	Dr. Joe Paiva will do a preliminary mapping of the course to the Kansas State Board of Technical Professions requirements by June 12 and send to the subcommittee to approve before sending the final copy to Lori. Task should be completed by end of June to get on July Board agenda. Approved program layout as presented. Send final program layout after mapping is done to the Kansas State Board of Technical Professions and request a letter of support

	<p>David reviewed further curriculum changes, including the blend of more general and advanced courses. The goal is to produce a well-rounded student coming out of this program. One further change was to eliminate the GIS component and add a Site Plan component.</p> <p>There was further discussion on how substitutions could be made if students have already taken classes that are similar to the courses being offered. It was determined that the college would need to make those decisions on substitutions. Cheryl Runnebaum stated that is something already seen in the other technical programs and advisors and instructors help with those substitutions at the program level when they enroll. Cheryl said there is also “experiential learning” which is time on the job applied to credit work.</p> <p>Larry suggested that someone take the syllabus and map the Kansas State Board of Technical Professions’ requirements to it and that would be kept on file. The Board has a July meeting and could review the course and provide a support letter stating it matches the core requirements. Cheryl stated the support letter would be submitted with the other paperwork to KBOR in August.</p> <p>James Meis made a motion to approve the program layout as presented. David Lee seconded and the motion was carried.</p> <p>Larry said once the mapping is done to send to the Kansas State Board of Technical Professions to the Executive Director Larry Karns and ask the Board if it would consider writing a letter of support for the program meeting the requirements for education for land surveyors.</p>	<p>that it meets its requirements for education of land surveyors.</p>
<p>KBOR Outline</p>	<p>Will Anderson stated that he has two support letters and expects the third one shortly. Cheryl said the support letter needs to address the number of jobs out there, that the business is willing to hire graduates, and the starting and median pay. Will said there have been numerous surveys done on pay information so that should be easy to get. He said the Kansas Society of Land Surveyors (KSLS) (Evelyn Cable) could possibly send out a survey on available openings. Lori said the information must be Kansas and regionally specific.</p> <p>KSLS did a salary survey in 2016, but the results were not released. James Meis stated the raw data is still available. Dr. Paiva stated he could look at the raw data and summarize it. However, Lori stated that KBOR dictates where to retrieve the</p>	<p>Dr. Paiva will summarize the raw KSLS 2016 survey data into an appendix format for the KBOR submission.</p>

	information from. Cheryl suggested putting the KSLS survey information in an appendix.	
Other Items	Lori stated there was not a lot of paperwork left that needed to be completed for KBOR. The biggest part was getting the syllabus and curriculum completed. The program objectives still need to be finalized. Lori added that this program will need two regular advisory board meetings per year in the spring and fall with official minutes taken which will be forwarded to KBOR. They could be done in conjunction with the KSLS meetings.	
Next Meeting (Via Zoom)	July 21, 2020 (Tuesday) at 5:30 PM – Last meeting then go into the regular Advisory meeting pattern.	Next meeting scheduled for Tuesday, July 21, 2020 at 5:30 PM.
Adjourn	The meeting was adjourned at 6:30 PM.	

AUGUST 27, 2020

KANSAS BOARD OF REGENTS
1000 SW JACKSON STREET, SUITE 520
TOPEKA, KS 66612-1368

Dear President Flanders and Regents,

This is a letter of support for establishment of the AAS Geospatial Planning program at Kansas City Kansas Community College.

The purpose of the program is to give structured education to students to prepare them for a career in the geospatial industry. It is the hope of the professionals across Kansas who also support the founding of this program, that greater numbers of qualified paraprofessionals, pre-professionals and professionals in land surveying who are able to meet the continuing demand for land surveying services will be made possible. Land surveying is fundamental to the commerce of the state. Owning real estate, whether by individuals and families or by small businesses or large corporations, is for many, a requisite step to building wealth, creating opportunities for themselves and others and advancing the economy of Kansas. Land surveyors are the first professionals reached by those wishing to advance themselves by owning land, as land surveyors are the only licensed professionals who can delineate land boundaries, determine quantities of the land, and evaluate the condition of property lines.

The creation of this program is a great addition to the state by providing a new cadre of qualified professionals who can provide these services. Licensure as a land surveyor in Kansas has strict educational requirements, and it is essential for the educational system as well as the professionals as individuals and corporations to support this initiative.

GeoLearn is an online education company providing continuing education for land surveyors and other geospatial professionals and also offering opportunities for paraprofessionals and pre-professionals. As a land surveying professional, I know that the demand for technical education as well as education on the business aspects of land surveying services is increasing in demand as technology, the needs of society and economic value of the land increases. While technology has improved the speed and accuracy with which land can be measured, the complexity of knowledge required and the abilities required to apply this knowledge as well as those of business principles has greatly increased. The practice of land surveying is demanding, and continues to increase in complexity.

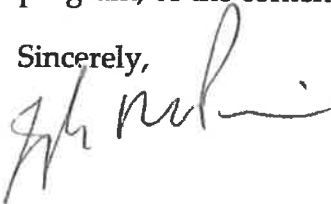
GeoLearn continuously interacts with professionals and others in the industry to understand what they need in the way of educational resources. It is from this

understanding, as well as working with the College's faculty, staff and advisory committee for this program that makes me an enthusiastic supporter. I pledge my support and the support of my company towards the success of this effort.

The growth in demand for more detailed real property information is only going to increase, as land surveying professionals also provide other services necessary for development such as topographic mapping, engineering and construction surveys, layout of highways and other types of routes, and the quality assurance and quality control that can only be provided with surveying services. I trust that the Kansas Board of Regents will concur and establish this program with enthusiasm.

I will be happy to respond to any questions that the Board or its staff may have on the program, or the contents of this letter.

Sincerely,

A handwritten signature in black ink, appearing to read 'J.V. Paiva', written over the word 'Sincerely,'.

Joseph V.R. Paiva, PhD, PS, PE
CEO
GeoLearn LLC

816-225-7163 (cell)
joepaiva@geo-learn.com



August 26, 2020

Kansas Board of Regents

RE: Surveying Education in Kansas.

BHC RHODES is a Civil Engineering and Surveying company with offices for their survey operations located at 712 State Avenue, Kansas City, Kansas. BHC RHODES employs over 100 employees in the Kansas area.

We have been providing Professional Services in this field for more than 28 years. Murray Rhodes, a named principle, operated a survey business in Wyandotte County for over 50 years prior to forming BHC RHODES.

We continue to look for employees as our business expands. It is difficult to find staff who have an education component, or field and office experience.

We currently have two of our staff taking advantage of the continuing education of surveying offered by Kansas City Kansas Community College (KCKCC), and we will continue to encourage more employee participation as time progresses.

We want to take this opportunity to support and commend KCKCC in their efforts to offer an on-line education program that will allow students to progress towards Professional Licensure in the Surveying Industry by satisfying the education component required under State licensing requirements.

We regularly hear from people within the local community, including high school students and parents, showing an interest in pursuing Surveying as a career. These people often ask us if we know of such a program in this area. While we offer our employees in-house training, they need the option of the formalized classes and recognized certification processes to advance.

KCKCC can provide these potential students with an opportunity to further their careers.

To reiterate, the need for surveying staff across the board is growing and that is accentuated by the aging of those within the industry. The demand for qualified employees is continuing to grow exponentially as well. It is becoming increasingly difficult to find qualified and knowledgeable candidates who have the skill set needed to succeed and grow in this field. An education program would greatly assist graduating students in finding quality employment both as they begin to enter the work force, as well as in their future endeavors.

BHC RHODES supports this effort by continuing to offer employment and other opportunities for the students to practice their skills and by participating with KSLs members and others through active participation to better understand what we can do to continue to support the efforts of this program. Putting quality, qualified, and knowledgeable graduates out into the workforce in the Kansas and Midwest USA area will only help improve our overall status as an effective partner in the Surveying Industry.

Sincerely,

Wil Anderson, PS.
Vice President
Survey Services Group Lead
BHC RHODES
Direct: 913 905 1573



BHC RHODES is a Trademark of Brungardt Honovich & Company, P.A.

BHC RHODES
Civil Engineering · Surveying · Utilities



Kansas Board of Regents
1000 SW Jackson Street, Suite 520
Topeka, KS 66612-1368

August 25, 2020

Dear Kansas Board of Regents,

I would like to take this opportunity to support and recommend Kansas City Kansas Community College in their efforts to finalize an education program that will allow students to progress towards Professional Licensure in the Surveying Industry.

HubTack has been in business since 2005, offering services to the surveying community. As such, we have taken a strong interest in furthering educational opportunities for new surveyors. We support this by providing scholarships, through the state Surveyors Association as well as providing free access to all our services to any active surveyor student.

We have been providing scholarships in Missouri and Oklahoma. When we started doing business in Kansas, we were shocked to find that the state of Kansas did not have an accredited surveyor's education program. We were very excited when we heard Kansas City Kansas Community College would be offering the program and we immediately contacted the Kansas Surveyors Association to set up a scholarship contribution.

Surveying is a critical function in property rights management and we, as an industry and education system, need to support new surveyors. I encourage you to provide support through education that this industry so desperately needs.

Sincerely,

A handwritten signature in black ink, appearing to read "Andrew G Parker", written over a horizontal line.

Andrew G Parker
President
HubTack, Inc.
630-566-9197 ext. 404
aparker@hubtack.com

Dwight D. Eisenhower State Office Building
700 S.W. Harrison Street
Topeka, KS 66603-3745

Julie L. Lorenz, Secretary
Burt Morey, P.E., Deputy Secretary and
State Transportation Engineer



Phone: 785-296-3285
Fax: 785-368-7415
kdot#publicinfo@ks.gov
<http://www.ksdot.org>
Laura Kelly, Governor

August 28, 2020

Board of Regents
1000 SW Jackson Street, Suite 520
Topeka, Ks. 66612-1368

Dear President Flanders and Regents,

The Kansas Department of Transportation (KDOT) would like to offer its support for formal approval of coursework to grant an Associate's Degree or Certificate in the field of surveying, under consideration for Kansas City Kansas Community College (KCKCC).

KDOT employs professional surveyors and contracts with consulting engineering firms in the course of development of its engineering projects. Surveying and surveyors are engaged in the preliminary surveys for the engineering, determination of boundaries and right of way plans and legal descriptions, monumentation of new right of way, and perpetuation of monuments of the Public Land Survey System (PLSS). Recently passed legislation of the IKE Highway Program, along with public projects by cities and counties across the state, amplifies the need of surveying staff of many employers.

The education provided by KCKCC, to my knowledge, is the sole higher education platform within Kansas offering a surveying curriculum. Requirements for licensure by the Kansas State Board of Technical Professions (KSBTP) dictate that initial qualified applicants have a minimum of two years of education in an approved surveying curriculum, combined with work experience. The State of Kansas is in dire need of a platform such as KCKCC. Information shared with us by the KSBTP reflects that as of late 2019, the number of in state licensed land surveyors was 325. Additional information, which they provided from calendar year 2000 to November 2019, only had 32 in state licenses issued for professional surveyors. These numbers cause a concern for our industry.

Thank you for the opportunity for KDOT to share our opinion on the necessity of this surveying educational platform. We look forward to the introduction of new recruits into surveying, and this also being a catalyst for staff existent in the survey profession to move onward and upward in their career towards licensure.

Sincerely,

A handwritten signature in blue ink, appearing to read "Burt Morey". The signature is stylized and fluid.

Burt Morey
Deputy Secretary & State Transportation Engineer



August 25, 2020

Dear Kansas Board of Regents,

My name is Wil Anderson, and I am the Chairman of the Board for the KSLs Charitable Foundation, a 501(c)3, whose goal is to promote land surveying and the education of new land surveyors. Over the years we have been granting scholarships and tuition assistance grants to 3 – 5 individuals per year, directed at those seeking to satisfy the licensing requirements for registration as a professional surveyor in Kansas.

I would like to take this opportunity to support and recommend Kansas City Kansas Community College (KCKCC) in their efforts to finalize their ability to offer an education program that will allow students to progress towards Professional Licensure in the Surveying Industry.

We hear from our members, and the general public, young and old alike, asking us if we know of such a program in Kansas. Until KCKCC began offering the Surveying I class, there was nowhere within the State of Kansas to take that class. We were forced to refer students to out of state programs, which required the students to pay out of state tuition.

The surveying community is aging, and many surveyors are on the verge of retirement. That contributes to an increasing demand for qualified employees. It is becoming increasingly difficult to find qualified and knowledgeable candidates who have the skill set needed to succeed and grow in this field. An AAS program would greatly assist these graduating students in finding quality employment both as they begin to enter the work force, as well as in their future endeavors. It will also help them meet the State's education requirements for licensing.

The KSLs Charitable Foundation supports this effort by continuing to offer scholarships and tuition assistance to students engaged in a land surveying field of study. Putting quality, qualified, and knowledgeable graduates out into the workforce in the Kansas and Midwest USA area will only help improve our overall status as an effective partner in the Surveying Industry.

Sincerely,

Wil C. Anderson, PS

Chairman

KSLs Charitable Foundation, Inc.



August 25, 2020

Dear Kansas Board of Regents,

My name is Bill Fox, and I am the President of the Kansas Society of Land Surveyors (KSL). Our mission statement includes the "...education of land surveyors." Over the past couple of years, our Education Committee Chairman, Wil Anderson, PS, has been working tirelessly toward establishing a land surveying degree program in Kansas. The goal has been to establish a way for those students who are attempting to enter the land surveying profession to obtain the education necessary to fulfil the requirements of the Kansas State Board of Technical Professions (KSBTP) for obtaining Professional Land Surveying registration.

I would like to take this opportunity to support and recommend Kansas City Kansas Community College (KCKCC) in their efforts to finalize their ability to offer an education program that will allow students to progress towards Professional Licensure in the Surveying Industry.

Earlier this year we sent the attached letter to the KSBTP to voice KSL's support for the Geospatial Planning program at KCKCC, concluding that "The Board of Directors of KSL wholeheartedly supports this effort to provide the educational opportunity within the State of Kansas through KCKCC.

KSL continues to support this effort by encouraging and funding the work and scholarships provided by the KSL Charitable Foundation, and by promoting the new KCKCC program through advertising in its publications and newsletters. Putting quality, qualified, and knowledgeable graduates out into the workforce in the Kansas and Midwest USA area will only help improve our overall status as an effective partner in the Surveying Industry.

Sincerely,

A handwritten signature in blue ink that reads "William P. Fox".

William P. Fox, PS
President
Kansas Society of Land Surveyors

Attachment



February 10, 2020

Mr. Larry Karns, Executive Director
Kansas State Board of Technical Professions
900 SW Jackson Street, Suite 507
Topeka, KS 66612

Dear Mr. Karns,

As you know, in January of this year, Kansas City Kansas Community College (KCKCC) began offering courses in survey education called Geospatial Planning program. Thank you for providing a notice "[Surveyor Program Available January 2020](#)" on the Kansas State Board of Technical Professions (KSBTP) home page. <https://ksbtp.ks.gov/>

Kansas needs more surveyors, and this program is one of very few options for interested students to gain the survey education component to move forward to Licensure. An important point to add is that currently there are no in-state options for students specifically aimed at Kansas Licensure. The program is being focused toward experienced people already in the Survey Industry. The courses being offered will be an on-line format allowing most students to continue working while taking the courses.

KCKCC, in partnership with members of the surveying community and the Kansas Society of Land Surveyors (KSLs), has helped in preparing the content for these classes following the 2006 guidelines for the curriculum as stated by the KSBTP. See the attachment.

KCKCC is proceeding with getting the documentation needed to submit to the Kansas Board of Regents (KBOR) for formal approval of this program for accreditation. The process of obtaining accreditation by the KBOR also requires an Advisory Committee made up of industry people.

Potential students who are interested in starting the Geospatial Planning program have expressed some concerns. The biggest one is that the classes at this point are not for credit and that they will be taking classes but won't get credit for them. Another big concern is that this program is not backed by KSLs therefore they would not be eligible to be licensed surveyors after putting in the work.

Although the initial courses are being offered by KCKCC as non-credit, pending KBOR approval for the program, any students who take the courses as non-credit will receive credit for them to go toward their degree once accreditation is complete. The courses being offered at this time have the same curriculum that will be used in the credit courses.

The Board of Directors of KSLs wholeheartedly supports this effort to provide the educational opportunity within the state of Kansas through KCKCC.

A handwritten signature in blue ink that reads "William P. Fox".

William P. Fox, PS
Kansas Society of Land Surveyors
President



Kansas Society of Land Surveyors

544 W. Douglas, Wichita, KS 67203

| Phone: 316-685-4114

| Email: President@ksls.com

| Website: WWW.KSL.COM

Points of Contact:

Kansas City Kansas Community College

Cheryl Runnebaum

Dean of Career and Technical Education

KCKCC-TEC

6565 State Avenue

Kansas City, KS 66102

913-288-7811

crunnebaum@kckcc.edu

Kansas Society of Land Surveyors

Education Committee Chair

Wil Anderson, PS1527

Vice President, Survey Services Group Leader

BHC RHODES

712 State Avenue

Kansas City, KS 66101

Cell: 913 904 4743

Wil.Anderson@ibhc.com

Land Surveying Curriculum
(Written by the Kansas State Board of Technical Professions and
approved by the Board on December 8, 2006.)

All course work shall be completed at a technical school, technical college, community college, college, or university approved by the Board.

I. General Education Courses.

A. Mathematics

- | | |
|-----------------|----------------|
| 1. Algebra | 3 credit hours |
| 2. Trigonometry | 3 credit hours |

A 3 credit hour course in calculus can be substituted for either algebra or trigonometry. A 5 credit hour course in pre-calculus will satisfy the mathematics requirement.

B. Mathematical statistics 3 credit hours

C. English. A minimum of 12 credit hours in the following courses:

- | | |
|--|----------------|
| 1. English I Composition | 3 credit hours |
| 2. English II Composition and Literature | 3 credit hours |
| 3. Speech | 3 credit hours |
| 4. Technical Writing | 3 credit hours |

D. Physical Science. A minimum of 3 credit hours in either physics or geology

E. Humanities. A minimum of 6 credit hours in the following courses:

- | | |
|---------------------|----------------|
| 1. A history course | 3 credit hours |
| 2. An ethics course | 3 credit hours |

II. Technical Courses. A minimum of 24 credit hours in the following courses:

- | | |
|--|----------------|
| A. Elementary surveying | 3 credit hours |
| B. Advanced surveying | 3 credit hours |
| C. Computer Aided Design (CAD) I | 3 credit hours |
| D. Computer Aided Design II | 3 credit hours |
| E. Global positioning system (GPS) | 3 credit hours |
| F. Geographic information system (GIS) | 3 credit hours |
| G. Boundary control | 3 credit hours |
| H. Real property law | 3 credit hours |

III. Business-related Courses. A minimum of 6 credit hours in the following courses:

- | | |
|------------------------|----------------|
| A. Accounting I | 3 credit hours |
| B. Business management | 3 credit hours |



Savoy Company, P.A
Land Surveyors
www.savoyco.com

Wichita, Kansas
433 S Hydraulic
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Kensington, Kansas
129 S. Main, Suite 100
P.O. Box 95
Kensington, KS 66951-9804
Cell. (785) 476-8061

August 24, 2020


Dear Kansas Board of Regents,

My name is Mark Savoy and I am the President and founder of Savoy Company, P.A. Savoy Company is authorized to offer Land Surveying services in the State of Kansas. Our Kansas Corporate License No is LS-141. We are also authorized to offer Land Surveying services in the State of Oklahoma. Our Oklahoma Certificate of Authorization No. is 6810. I have made my living in the surveying industry for over 50 years. I have been registered as a land surveyor in Kansas for over 39 years. In addition to Interactive private events and team building. I would like to take this opportunity to support and recommend Kansas City Kansas Community College in their efforts to finalize their ability to offer an education program that will allow students to progress towards Professional Licensure in the Surveying Industry.

Our company participates in numerous events promoting "Land Surveying" as a viable profession to pursue as a long-term career, but we have an extremely limited number of options to send them to certification-focused schools to master and finalize their education. We hear from our customers, young and old alike, as well as parents of young men and women who are approaching the completion of their high school education, if we know of a program in the Kansas that offers an associates or bachelor's degree in surveying.

Savoy Company supports this effort by continuing to offer internships and other opportunities for the students to practice their skills in a real-world environment. Putting quality, qualified, and knowledgeable graduates out into the workforce in the Kansas and Midwest USA area will only help improve our overall status as an effective partner in the Surveying Industry.

Sincerely,


Mark A. Savoy



3433 Tree Court Ind. Blvd.
St. Louis, MO 63122
www.seilerinst.com
(314) 968-2282
(800) 489-2282

Manufacturing • Geospatial • Medical • Planetarium • Design Solutions

August 25, 2020

Dear Kansas Board of Regents,

My name is Tom Seiler and I am an owner and Executive Vice President of Seiler Instrument Geospatial. Seiler Instrument has support University Survey, construction and mapping programs across many states in the Midwest. I would like to take this opportunity to support and recommend Kansas City Kansas Community College in their efforts to finalize their ability to offer an education program that will allow students to progress towards Professional Licensure in the Surveying Industry. Seiler Instrument is prepared to offer support both in person training and support of the programs as well as support through the long term loaning of the latest Trimble Surveying systems for the students to learn and practice with.

We support the goal of putting quality, qualified, and knowledgeable Survey graduates out into the workforce in the Kansas and Midwest USA area. This will only help improve our overall status as an effective partner in the Surveying industry.

Sincerely,

Tom Seiler, Executive Vice President

Seiler Instrument & Manufacturing Co. Inc.
3433 Tree Court Industrial Blvd
St. Louis, Mo. 63122
Cell-314 422-7903
Office-314 218-6331
E mail tseiler@seilerinst.com
<https://www.seilergeo.com/>



A commitment to excellence since 1945

**MINUTES OF APPROVING
CURRICULUM COMMITTEE
AND
KCKCC BOARD OF TRUSTEES**

Academic Policies
November 17, 2020
Minutes

Call to order at 2:17, quorum established

I. Approval of Minutes: Renee moved to accept minutes, Ian seconded, minutes approved

II. Old Business -

A. Tech- The new programs were requested by industry professionals. The math for the AAS degrees has been changed to "MATH0103 or higher" and BLUE0101 has been moved to the beginning of the program. Sheldon made a motion to accept the tech programs. Frankie seconded. Motion passed.

1. Surveyor Technician – AAS This would be the only surveyor program in Kansas
2. Surveyor Technician – Certificate B
3. Automation Engineer(Advanced Manufacturing) - AAS-
4. Automation Engineer(Advanced Manufacturing) – Certificate C
5. Diesel Technician – AAS- Bonner Springs School District and Kincaid partnered and requested this program.
6. Diesel Technician – Certificate B
7. Cybersecurity – Certificate A

B. Health professions. Antonio asked about the request to co-list PSYC0115 with MTSC0225, making them the same content. Theresa said this would be similar to what is done with CPR. Antonio needs to work with the mortuary science department to create a common curriculum. Janice said this would need some further discussion, so we could bring this back to the next meeting. Antonio made a motion to accept the LPN program changes. Dagny seconded. Motion passed.

1. Health Professions Program/Course Modifications – Nursing/Practical Nursing

NUPN-0100- one credit hour basic health assessment introductory course (replaces 3-credit hour course)

NUPN-0200- one credit hour clinical judgement course, new course

ALHT-0120- one credit hour medical terminology pre-requisite to the PN program, new course

NUPN-0134 – remove from curriculum

2. Health Professions Program/Course Modifications/New Course – Mortuary Science

MTSC-0102- This orientation course would replace MTSC-0101

MTSC-0101 – remove from curriculum

Academic Policies
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PSYC-0115 – remove from curriculum

Humanities Elective – remove from curriculum

C. Arts and Humanities- There is still not an answer about whether it would transfer. Theresa said this would probably school specific. Students who test out of Spanish I are given credit for the course, so the question was brought up about why students would need this course if they tested out of Spanish I. JCCC, K-State, KU, Wichita State, and others have this in their catalogue, but it is not KBOR aligned. Theresa is going to reach out to the Kansas registrars to see how they handle the class. Janice and Jerry said they would reach out to the KCKCC language department with our questions and concerns.

1. Arts Humanities & Communications - New Course

LANG-0144 – Spanish for Heritage Learners

D. Meeting start time next semester- Frankie has a class from 1:00-2:00, so we will keep the start time at 2:15.

III New Business – None

Adjourned at 2:50

Members present: Deanne Yates, Dagney Velazquez (proxy for Jon Taylor), Ian Corbett, Theresa Holliday, Renee Gregory, Sheldon Guenther, Frankie Davis, Antonio Cutolo-Ring

Guests: Janice Spillman, Jerry Pope



Mission Statement: Inspire individuals & enrich our community one student at a time.



Vision Statement: Be a national leader in academic excellence & partner of choice in the communities we serve.

**KANSAS CITY KANSAS COMMUNITY COLLEGE
Board of Trustees Meeting Minutes
November 17, 2020 – 5:00 P.M.**

Meeting Location: Virtual - Zoom Webinar Meeting

1. **Call to Order & Pledge of Allegiance:** Chairman Ray Daniels called the meeting to order at 5:00 p.m. The Pledge of Allegiance was led by Trustee Rosalyn Brown.

Chair Daniels called for a moment of silence to honor two current KCKCC employees who passed away – Ms. Wendy Lombardi (Adult Education) and Mr. Jose Matias Cantu (Facility Services).

Chair Daniels read the College's mission statement.

2. **Roll Call:** Indicated the following present – Trustees: Ash, Brown, Brune, Criswell, Daniels, McIntyre, Sutton. All members present.
3. **Approval of Agenda:** Chair Daniels called for a motion to accept the Agenda with approved amendments, making note that there were no errors that needed a vote to change. Vice-Chair Criswell made the motion to accept the agenda. Trustee Brown seconded the motion. **The Motion Carried.**
4. **Audience to Patrons and Petitioners:** There were no patrons or petitioners to address the Board.
5. **Recognitions/Presentations:** Presentations of "I See You" Spotlight Awards, instituted by the Office of Student Activities, were made by Dr. Delfina Wilson, Vice-President of Student Affairs and Mr. Jerry Pope, Interim Vice-President of Academic Affairs.
 - Mr. Robert Beach, Assistive Technology Specialist In Student
 - Ms. Ashley Irvin, Student Success Advisor in Student Success Center at TEC
 - Ms. Carrie Dimino, Coordinator of Tutoring – Writing Center
 - Ms. Adoria Wilson, Technical Assistant in the Learning Commons
 - Ms. Angie Biando, Adjunct Faculty member in Arts, Communications and Humanities and a faculty tutor in the Writing Center

Chair Daniels congratulated and thanked the awardees for their services on behalf of the

Board. Dr. Mosier echoed the sentiments and extended many thanks for attending the Board meeting.

Additionally, the 2nd Annual KCKCC Board of Trustees Food Drive was presented by Chair Ray Daniels. Dr. Mosier shared a photo of the food collected by the Board to assist with minimizing food insecurity at KCKCC. Dr. Mosier extended many thanks to the Board, KCKCC administration, and MVP Law for their generous contributions.

6. **Communications:** With no scheduled communications, Chair Daniels moved to the next agenda item.
7. **Board Committee Reports:** Chair Daniels called for reports from the Board Committees.
 - On behalf of the Board Finance Committee, Vice-Chair Criswell stated the following items were discussed in their meeting on Tuesday, November 10th –
 - Update on Downtown project
 - Update of financial impact of COVID-19
 - SPARKS Funding transfers to College budget
 - Course Fees
 - Introduced a one-page summary report that will be presented by Mr. Michael Beach, Chief Financial Officer, during his report.

Vice-Chair Criswell concluded that the key theme for the College is that it continues to perform very well, particularly with expense tracking and being financially responsible as an organization.

- On behalf of the Board Policy Committee, Trustee Sutton stated there are policies currently being vetted by all senates. There will be policies to approve at the December Board meeting.
 - Trustee Ash presented the KACCT Update. He shared that he would be forwarding the information regarding the ACCT National Legislative Summit occurring in February 2021. The ACCT Legislative Summit will be virtual and offers a group rate to attend. Trustee Ash invited the Board members to inform Ms. Risala Allen, Executive Administrative Partner to the President and Board of Trustees, if they would like to attend. He shared that there would be anticipated changes in Washington, D.C. shared and that the summit offers an opportunity to talk with Kansas senators. Trustee Ash plans to work with Dr. Mosier and Ms. Allen to set up Zoom meetings with Kansas legislatives which includes Rep. Sharice Davids, Sen. Jerry Moran, and Sen. Roger Marshall or their aids. The upcoming KACCT Quarterly Meeting will be held virtually on Saturday, Dec. 5th. He invited the Board members to email him for more information.
8. **Consent Agenda:** Chair Daniels called for a motion to accept the Consent Agenda. Trustee Brown moved to accept the Consent Agenda. Trustee McIntyre seconded the motion.
The Motion Carried.
 9. **Student Senate Report:** Chair Daniels called for the Student Senate report. Mr. Destin Williams, Student Senate President, reported the following –
 - Hosted 2 Student Senate meetings.

- Hosted the Kids Halloween Drive-In Movie event; there were 20 vehicles in attendance. There were 13 clubs and organizations that helped support this event.
- A third meeting is scheduled with Dr. Shawn Derritt, Dean of Student Success, to discuss student success and other concerns.
- Reviewed 11 new policies since Oct. 23rd.
- Participated and hosted in the Student Town Hall Meeting where the topic was, "Race and Racial Disparities: How is KCKCC Addressing These Topics as an Urban Community College?"
- Final Student Senate meeting of the semester will be held on Nov. 20th at 1:30 p.m.
- Will host 2 Virtual Breakfast with Santa events; the dates are Saturday, Dec. 5th and Saturday, Dec. 12th.
- Campus Wonderland Gift bags will be created for the 34 families.
- Student Veterans Organization hosted a Battle of Branches Food Drive at all campuses.
- Active Minds have been hosting weekly, virtual club meetings.
- Gamers Club meeting twice weekly both face-to-face and virtually.
- The ASL and OQS clubs have been posting weekly virtual meetings.
- Music Club will host the Impact Virtual Music Festival.

Mr. Williams concluded his report and asked the Board for any questions. Trustee Sutton asked for more information concerning the Campus Wonderland donations. Mr. Williams answered that he would confirm the details for donation and follow up with the Board members.

Chair Daniels asked for any final comments or questions. Hearing none, he called for a motion to accept the Student Senate report. Trustee Sutton made a motion to accept the report. Vice-Chair Criswell seconded the motion. **The Motion Carried.**

10. **President's Report:** Chair Daniels called for the President's report. Dr. Mosier reported the following –

- Thanked everyone who participated in the Board's annual food drive.
- HLC Update – the College is still fully accredited; the status is now Accredited-Probation. There is a good plan in place to address the deficiencies identified by HLC. The plans are in place for program review and assessment to ensure that the College is able to collect the desired body of evidence HLC requires. Dean of Academic Support and Assessment, Ms. Cecelia Brewer, and Director of Assessment, Dr. Cynthia Goudeau, have been doing a great job in moving the College forward in this process. It is important the College continues this great work. The HLC follow-up visit will occur in May 2022. All areas discussed in the report will be reviewed. KCKCC's HLC Liaison is Mr. Jerry Pope. Dr. Mosier expressed confidence that the College will improve where needed and will be here for the next 100 years.
- Strategic Plan 3-year review cycle – discussing with President's Cabinet members the need to revisit the plan's KPIs due to COVID-19 impact.

- Mentioned the Student Senate Town Hall meeting on racial inequities was a success and should lead to many more important discussions with the students.
- The College held the Annual President Leadership Circle Breakfast virtually. There was great attendance and follow up with that meeting. Dr. Mosier shared slides about the new economic opportunities coming to Wyandotte County that were shared during the President's Leadership Circle. Student Housing images were also shared. The College is looking to break ground at the end of January or beginning of February 2021. Dr. Mosier also shared updated photos of KCKCC Downtown Community Education Center. The construction cost has been reduced from \$52 million dollars to \$47 million dollars. There is a potential partner to add a third level on partner building.
- With uptick in COVID-19 cases, each President's Cabinet member will go to a 50/50 mix of virtual and on-site staffing after Fall Break. Staff will be rotating to reduce the physical number of people on-site, but not reducing hours.

Dr. Mosier concluded his report and asked the Board for any questions. Chair Daniels asked how the College is marketing to the businesses that are coming to Wyandotte County regarding the ways in which KCKCC can contribute to their needs. Dr. Mosier answered that the College works closely with the Wyandotte EDC, where the College's program offerings, workforce development and specialized training programs are shared in meetings with these businesses.

Chair Daniels asked for any final comments or questions. Trustee Ash made a motion to accept the report. Vice-Chair Criswell seconded the motion. **The Motion Carried.**

11. **Vice President Academic Affairs Report:** Chair Daniels called for the Vice President of Academic Affairs (VPAA) report. Mr. Jerry Pope, Interim VPAA, highlighted the following items from the Board report –

- Mr. Tom Grady, Director of Center for Teaching Excellence, added a list of professional development opportunities available for faculty to include the Blue Devil Faculty training, Kansas City Professional Development Council's Faculty Development Program, First Fridays Faculty Mentoring sessions, and Two for Tuesdays Mentoring webinars.
- The Digital Imaging and Design students and faculty attended the annual Adobe Max conference. With it being offered virtually this year, more students were able to attend.
- Professor Tasha Haas (English) and Dr. Brian Whitehead (Journalism) have curated the newest edition of *The Scenic Route*, a beautiful magazine that features fine arts and literary contributions from the students and faculty of KCKCC. Student intern, Mr. Caleb Goldbeck, assisted with the publishing of this edition.
- The Culinary Arts students are using CAD to design their own kitchens. There are some amazing pictures from the building projects and community work being done by the students in the Building Maintenance and Technology program.

- Ms. Janel Sanders, Community Education/Continuing Education Coordinator, is developing a partnership with Cornerstones of Care to deliver well-being classes for teenage foster kids.
- The Adult Education department is currently developing a business ESL class in partnership with Plastic Packaging in Kansas City, KS. Classes are planned to begin in January 2021.
- The Health Professions departments are doing a great job in mitigating the effects of COVID among their student and faculty. In fact, KCKCC is doing a good job as an institution in keeping one another safe.
- The PN program is collaborating with Media Services to develop a virtual pinning for the Fall 2020 graduates.
- Math, Science, and Business Technology – the division has collected over 240 items for the KCKCC food pantry, “Blue’s Kitchen”.
- The KCKCC Enactus team is working with faculty and staff of the college to host Virtual Zoom interviews with seniors from F.L. Schlagle High School on November 19 & 20. The purpose of the interviews is to help prepare them for life skills after high school.
- Aerotek, a regional staffing agency, is partnering with KCKCC to host a virtual career fair.
- Adjunct professor, Dr. Mary Patterson and her team, worked on completing 180 kits to be distributed to the Saturday Academy participants as they go virtual with the Academy this year.
- Social and Behavioral Science – Dan Stluka, Coordinator of the Early Childhood Development and Education program, is currently working on an academic pipeline to allow our Early Childhood Education students to earn their associates degree here and go on to Washburn University to earn their bachelors degree and then on further to K-State to earn their masters degree.

Mr. Pope informed the Board, regarding a few questions they asked about the developmental education student data, that he and Dr. Wilson are working with faculty to make a brief presentation in December 2020 or January 2021. Mr. Pope concluded his report and asked for any questions from the Board.

Vice-Chair Criswell commended Mr. Pope for the CAD design project for the Culinary students. He extended the kudos to Dean Cheryl Runnebaum. Trustee Sutton offered kudos to Ms. Sanders for offering courses to the teenagers in the foster system. She asked whether the classes were virtual. Dean Runnebaum answered that the courses will be offered onsite unless COVID prevents it. She added that in-person courses are more impactful for the foster care students.

Chair Daniels thanked Mr. Pope for his report and for the future report on developmental education. He asked for any final comments or questions. Hearing none, he called for a motion to accept the Vice President of Academic Affairs report. Vice-Chair Criswell made

a motion to accept the report. Trustee McIntyre seconded the motion. The Motion Carried.

12. **Vice President Student Affairs Report:** Chair Daniels called for the Vice President of Student Affairs (VPSA) report. Dr. Delfina Wilson highlighted the following items from the Board report –

- Kudos to Student Accessibility and Support Services department who were featured in Community College Daily (CC Daily) to share their provision of accessible materials for students.
- New College Nurse, Ms. Sylvia Gillis, introduced. In early December, the College will have an Associate College Nurse, an LPN, join the ranks to complete the College Nursing Team.
- All campuses are open after Thanksgiving Break. The staff and faculty are here to serve the students. President's Cabinet is looking for the best fit in each area to ensure all areas are covered.
- Extremely proud of the students that participated in the "Race and Racial Disparities" Town Hall. It was a great experience and opportunity to share with and learn with them. KCKCC administration is looking forward to continuing to work with the students and continue these conversations.
- Dr. Mihir Chand and Dr. Wilson have been invited to do a "KC Live" show taping with KSHB. More details to come following Fall Break.
- Emphasized the importance of looking at changes and responding in positive ways to the needs of the College community. One thing that the College is looking to do is to invest time and money to enhance services offered to the diverse community that we serve. One way to do this is via a restructuring of the Intercultural Center to enhance services offered to the students and employees so that everyone feels as though KCKCC is a place where they belong.

Dr. Wilson concluded her report and asked the Board for any questions. Trustee Ash commented on the nice job Dr. Wilson did with the report. He asked if there were any early indications on enrollment for next spring from the high school partners. Dr. Wilson answered that it is still a bit soon to tell. At the December meeting she will share the spring enrollment report and should have a better idea of what is to come with the spring enrollment.

Chair Daniels asked whether the vacancies in Student Affairs division were creating issues to providing services to students. Dr. Wilson answered that the Student Affairs staff were stepping up and supporting one another to be there for the students, although the reduced volume of students it has been manageable. Chair Daniels asked Dr. Wilson to pass on the Board's gratitude for all the staff is accomplishing with fewer people.

Trustee Sutton asked about policies and procedures coming for review by the Board Policy Committee. The Military Policy was previously approved on April 21, 2020. She asked if Dr. Wilson would speak to this and the other policies and procedures to come?

Dr. Wilson answered that the Military Policy needs to go through the process for proper policy numbering. The other policies and procedures are new.

Chair Daniels thanked Dr. Wilson and called for approval of the Vice President of Student Affairs report. Trustee Ash made a motion to accept the report. Trustee Sutton seconded the motion. **The Motion Carried.**

13. **Vice President Strategic Initiatives & Outreach Report:** Chair Daniels called for the Vice President of Strategic Initiatives & Outreach (VPSIO) report. Ms. Tami Bartunek highlighted the following items from the Board report –

- The link to the article from CC Daily is included in report. Collaboration between departments increasing more and more for supporting students' needs.
- Received link to National Council for Marketing & Public Relations (NCMPR) Awards Ceremony in October 2020. The area for our district consists of Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota, the Canadian province of Manitoba, Puerto Rico and Virgin Islands.
- Tomorrow online event, "Leveraging LinkedIn," in partnership with KCKCC Foundation occurs. There are more than 200 registrations.
- "KC Live" show was recorded this morning with Mr. Jerry Pope and Dean Cheryl Runnebaum. They did a fantastic job! As soon as the show is publicly shared, the College will share it as well. Tomorrow, Dr. Mosier and Ms. Bartunek will record KC Live show offering updates about KCKCC programs and projects.
- Partnering with Kansas State Chamber of Commerce for the 2nd Annual Minority Business Summit on Tuesday, Dec. 8th.
- KC Scholars cobranding digital billboard in Leavenworth, KS.
- Shared new tv commercial and radio advertisement.

Ms. Bartunek concluded her report and asked the Board for any questions. Vice-Chair Criswell offered kudos continued progress and expressed gratitude for everything Ms. Bartunek and her team does.

Chair Daniels asked for any final comments or questions. Hearing none, he called for a motion to accept the Vice President of Strategic Initiatives & Outreach (VPSIO) report. Vice-Chair Criswell made a motion to accept the report. Trustee Ash seconded the motion. **The Motion Carried.**

14. **Chief Financial Officer Report:** Chair Daniels called for the Chief Financial Officer (CFO) report. Mr. Michael Beach highlighted the following items from the Board report –

- Expressed appreciate for the Board's recognition of Mr. Jose Matias Cantu. He was only 31 years young and was admired by many. He chose to share himself and his talents with KCKCC.
- Final report from Novaks Burks will be shared at the December Board Finance and Board General meetings.

- Announced new Payroll Coordinator, Ms. Angela Maslowski and New Police Officer, Mr. Jonathan Berry.
- Student Housing Update – completed all community charettes with good results.
- Engaged special bonds counsel and expect to offer final resolution for the issuance for the bonds at the December Board meeting.
- In December, there is a need for a separate Board meeting, a budget hearing to amend the 2020-2021 budget to include the SPARKS funding through CARES Act initiatives from the government in the amount of just under \$1.5 million dollars. Dr. Mosier added that KCKCC received \$25K from Leavenworth County through the CARES Act. The grant will be put to good use at the Pioneer Career Center.
- Bookstore moves forward in preparation for spring.
- Facilities Crew continues to complete great projects across campus.
- Police officers attending and completing training. In efforts to become more financially sustainable, it has been approved to hire security guards to replace some police officer positions. Security guard will be working with the police officers.
- Shared and reviewed the Monthly Financial Summary for November. In the future, the report will be included with the other finance reports.

Mr. Beach concluded his report and asked the Board for any questions. Board members discussed their appreciation for the clarity and ease of use of the new report as well as Mr. Beach's explanations. Vice-Chair Criswell added that she wanted to make sure the Board Finance Committee shares details about the tools being used and provide information.

Chair Daniels asked for any final comments or questions. Hearing none, he called for a motion to accept the Chief Financial Officer report. Vice-Chair Criswell made a motion to accept the report. Trustee McIntyre seconded the motion. **The Motion Carried.**

15. Chief Human Resources Officer Report: Chair Daniels called for the Chief Human Resources Officer (CHRO) report. Ms. Christina McGee highlighted the following items from the Board report –

- Benefits information meetings currently happening for the employees. Employees and students are being informed about the Employee Assistance Program (EAP) and Student Assistance Program (SAP) opportunities.
- Several open-enrollment information sessions have been scheduled. New benefit cycle begins on January 1st.
- The COVID Shared Leave pilot program for staff launched Friday. There are currently 370 hours donated to the shared leave program.

Ms. McGee addressed the question from Vice-Chair Criswell last month concerning annual training for information security being offered. It is not offered in the current training platform, Knowledge City, but other means are being explored. Ms. McGee concluded her report and asked the Board for any questions.

Vice-Chair Criswell offered gratitude for the update and for the employees who stepped up to donate leave as a beautiful reflection of hearts of KCKCC employees. Dr. Mosier added that the EAP and SAP are great for the institution and for the people who are here. They are important.

Chair Daniels asked for any final comments or questions. Hearing none, he called for a motion to accept the Chief Human Resources Officer report. Trustee Sutton made a motion to accept the report. Vice-Chair Criswell seconded the motion. **The Motion Carried.**

16. **Chief Information Officer Report:** Chair Daniels called for the Chief Information Officer (CIO) report. Mr. Peter Gabriel highlighted the following items from the Board report –
- Expressed thanks to Mr. Beach for the new paint and lighting in the Humanities building.
 - Talking with other colleges in Kansas and investigating company, Know Before, on information security training for the College.
 - Thanked Information Services teams for their hard work.
 - Working on standard operation procedures (SOPs) for technology and other Information Services processes.
 - Network connectivity rate on the rise.
 - PaperCut upgrade should be completed this week. This service provides the College a means to securely print and retrieve print jobs anywhere on campus.

Mr. Gabriel concluded his report and asked the Board for any questions. Chair Daniels thanked Media Services for support with Board meetings each month and all meetings in between. He asked for any final comments or questions. Hearing none, Chair Daniels called for a motion to accept the Chief Information Officer report. Trustee McIntyre made a motion to accept the report. Trustee Brune seconded the motion. **The Motion Carried.**

17. **Unfinished Business:** Chair Daniels acknowledged that there was no unfinished business scheduled. The Board moved to the next agenda item.

18. **New Business:**

- a. Mr. Darren Elliott presented the KCKCC Racial Equity Statement to the Board for approval. Trustee Sutton made the motion to adopt the statement. Vice-Chair Criswell seconded the motion. **The Motion Carried.**
- b. Mr. Jerry Pope presented for approval the affidavit for Lansing Correctional Facility as an additional KCKCC educational location. Trustee Brune made the motion to adopt the affidavit. Vice-Chair Criswell seconded the motion. **The Motion Carried.**
- c. Mr. Jerry Pope presented three new academic programs (Diesel Technician Certificate B and AAS; Surveyor Technician Certificate B and AAS; and Automation Engineer (Advanced Manufacturing) Certificate B and AAS) for approval. Trustee

Sutton made a motion to approve the three new academic programs. Trustee Brune seconded the motion. **The Motion Carried.**

d. Dr. Mosier shared the HLC Institutional Actions plan for KCKCC.

19. **Executive Session(s):** Chair Daniels acknowledged that there were no executive sessions action needed for the general meeting.

20. **Adjournment:** Vice-Chair Criswell made a motion to adjourn the meeting. Trustee Ash seconded the motion. **The Motion Carried.**

The meeting of the Board of Trustees adjourned at **7:14 p.m.**

ATTEST:



Chairperson, Dr. Ray Daniels



Secretary, Dr. Greg Mosier

SYLLABI

SYLLABUS

DATE OF LAST REVIEW: 08/20/2020
CIP CODE: 15.1102
SEMESTER: Departmental Syllabus
COURSE TITLE: Surveying I
COURSE NUMBER: SURV 0101
CREDIT HOURS: 3
INSTRUCTOR: Departmental Syllabus
OFFICE LOCATION: Departmental Syllabus
OFFICE HOURS: Departmental Syllabus
TELEPHONE: Departmental Syllabus
EMAIL: Departmental Syllabus
KCKCC-issued email accounts are the official means for electronically communicating with our students.

CO-REQUISITES: MATH-0112 Trigonometry and ENGL-0101 Comp I

REQUIRED TEXT AND MATERIALS: Please check with the KCKCC bookstore, <http://www.kckccbookstore.com/>, for the required texts for your particular class.

COURSE DESCRIPTION:

This course teaches basic surveying principles, mathematics, and operations with emphasis on basic computations and operation of equipment including the surveyor's tape, level, and total station. This course has a laboratory component where the student learns basic instrument use and elementary surveying operations through a variety of field exercises.

METHOD OF INSTRUCTION:

A variety of instructional methods may be used depending on content area. These include but are not limited to: lecture, multimedia, cooperative/collaborative learning, labs and demonstrations, projects and presentations, speeches, debates, and panels, conferencing, performances, and learning experiences outside the classroom. Methodology will be selected to best meet student needs.

COURSE OUTLINE:

- I. Surveying principle
 - A. Methods
 - B. Tools

- C. Introduction to the basic units used in surveying (Chains, Poles, etc.) and conversion problems.
- II. Survey distance measurements
 - A. Distance
 - B. Electronic
- III. Vertical distances
 - A. Differential leveling including profiles and cross sections
 - B. Trigonometric leveling
 - C. Other leveling methods
- IV. Angle measurement
 - A. Total station
 - B. Compass
 - C. Angle measuring techniques
- V. Directions of lines (azimuths, bearings)
 - A. Magnetic directions, declinations
- VI. Calculating corrections to measurements
- VII. Measuring a traverse
 - A. Adjusting angles
 - B. Calculating bearings or azimuths of traverse lines
- VIII. Errors in measurements
 - A. Systematic errors
 - B. Random errors
 - C. Statistics and probability
 - D. Combining results of errors in measurements

EXPECTED LEARNER OUTCOMES:

- A. The student will be able to identify appropriate methods and tools for common land surveying applications.
- B. The student will be able to apply techniques to account for errors.
- C. The student will be able to conduct taping operations and other distance measurement techniques.
- D. The student will be able to utilize a level for differential and profile leveling.
- E. The student will be able to utilize a manual total station to conduct survey operations including measuring horizontal angles, vertical angles, and slope and horizontal distances.
- F. The student will be able to perform calculations using measured data to generate solutions required for common land surveying projects.
- G. The student will be able to measure, adjust and calculate a traverse line.
- H. The student will be able to develop and maintain a survey field book.

ASSESSMENT OF LEARNER OUTCOMES:

Student progress is evaluated by means that include, but are not limited to, exams, written assignments, and class participation.

SPECIAL NOTES:

This syllabus is subject to change at the discretion of the instructor. Material included is intended to provide an outline of the course and rules that the instructor will adhere to in evaluating the student's progress. However, this syllabus is not intended to be a legal contract. Questions regarding the syllabus are welcome any time.

Kansas City Kansas Community College is committed to an appreciation of diversity with respect for the differences among the diverse groups comprising our students, faculty, and staff that is free of bigotry and discrimination. Kansas City Kansas Community College is committed to providing a multicultural education and environment that reflects and respects diversity and that seeks to increase understanding.

Kansas City Kansas Community College offers equal educational opportunity to all students as well as serving as an equal opportunity employer for all personnel. Various laws, including Title IX of the Educational Amendments of 1972, require the college's policy on non-discrimination be administered without regard to race, color, age, sex, religion, national origin, physical handicap, or veteran status and that such policy be made known.

Kansas City Kansas Community College complies with the Americans with Disabilities Act. If you need accommodations due to a documented disability, please contact the Director of the Academic Resource Center, in Rm. 3354 or call at: 288-7670.

SYLLABUS

DATE OF LAST REVIEW: 06/03/2020
CIP CODE: 15.1102
SEMESTER: Departmental Syllabus
COURSE TITLE: Surveying II
COURSE NUMBER: SURV 0102
CREDIT HOURS: 3
INSTRUCTOR: Departmental Syllabus
OFFICE LOCATION: Departmental Syllabus
OFFICE HOURS: Departmental Syllabus
TELEPHONE: Departmental Syllabus
EMAIL: Departmental Syllabus
KCKCC-issued email accounts are the official means for electronically communicating with our students.

PREREQUISITES: SURV-0101 Surveying I, with a grade of C or better

REQUIRED TEXT AND MATERIALS: Please check with the KCKCC bookstore, <http://www.kckccbookstore.com/>, for the required texts for your particular class.

COURSE DESCRIPTION:

This course teaches the theory and practice of traverse computation. Topics introduced include mathematics and concepts used in route surveying, elementary concepts of project boundary surveying, topographic mapping, and volume calculations and construction surveying. Elementary concepts of Geographic Information Systems (GIS) and Global Positioning Systems (GPS) are also introduced. This class has a laboratory component where the student builds on the instrument use and surveying operations learned in Surveying I.

METHOD OF INSTRUCTION: A variety of instructional methods may be used depending on content area. These include but are not limited to: lecture, multimedia, cooperative/collaborative learning, labs and demonstrations, projects and presentations, speeches, debates, and panels, conferencing, performances, and learning experiences outside the classroom. Methodology will be selected to best meet student needs.

COURSE OUTLINE:

- I. Learn commonly accepted safety rules to perform basic survey operations
- II. Use total stations while performing several different surveying techniques

- III. Apply accuracy standards and appropriate adjustments
- IV. Introductory GIS, GNSS, and State Plane Coordinate System concepts
- V. Analyze and adjust a traverse using the compass rule
- VI. Concepts of boundary surveying and information about various aspects of a site such as volumes, areas, and the shape of the land
- VII. Basic analysis and computation of horizontal circular curves, survey and create topographic maps, plans and profiles, develop an understanding of some of the procedures used in construction surveying, and route surveying.
- VIII. Introduction to the Principles of the PLSS Survey System used in Kansas.

EXPECTED LEARNER OUTCOMES:

- A. The student will be able to perform traverse calculations including adjusting traverse data for the error in the survey.
- B. The student will be able to calculate coordinates of traverse points and side shots.
- C. The student will be able to calculate the area of figures, given bearings/azimuths and distances, balanced latitudes and departures or coordinates.
- D. The student will be able to calculate components of a circular curve, stations and basic setting out functions.
- E. The student will be able to calculate elements of equal tangent vertical curves including elevations on the curve and station and station of high/low points.
- F. The student will be able to understand the concepts of boundary surveying and how to conduct elementary field operations.
- G. The student will be able to understand the concepts of topographic mapping and be able to manually create contour maps.
- H. The student will be able to understand the concepts of construction surveying, related surveying operations and calculations of volumes.
- I. The student will be able to have an elementary understanding of the concepts of GIS & GNSS.
- J. The student will be able to have an elementary understanding of the Public Land Surveying System used in Kansas.

ASSESSMENT OF LEARNER OUTCOMES:

Student progress is evaluated by means that include, but are not limited to, exams, written assignments, and class participation.

SPECIAL NOTES:

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SYLLABUS

DATE OF LAST REVIEW: 06/03/2020

CIP CODE: 15.1102

SEMESTER: Departmental Syllabus

COURSE TITLE: Global Navigation Satellite Systems (GNSS)

COURSE NUMBER: SURV 0104

CREDIT HOURS: 3

INSTRUCTOR: Departmental Syllabus

OFFICE LOCATION: Departmental Syllabus

OFFICE HOURS: Departmental Syllabus

TELEPHONE: Departmental Syllabus

EMAIL: Departmental Syllabus
KCKCC-issued email accounts are the official means for electronically communicating with our students.

PREREQUISITES: SURV-0102 Surveying II, with a grade of C or better.

REQUIRED TEXT AND MATERIALS: Please check with the KCKCC bookstore, <http://www.kckccbookstore.com/>, for the required texts for your particular class.

COURSE DESCRIPTION:

This course teaches fundamental concepts in the use of global navigation satellite systems (GNSS) to students preparing for work in the geospatial industries and professions. Students will understand spatial referencing concepts, and the similarities and differences between the leading global systems. Topics include introduction to GNSS receivers and GNSS software systems that are used to collect, correct, map, and analyze geospatial data. Elementary geophysical applications of GNSS will be learned. It also includes a discussion of and application of meter level, sub-meter level, and cm-level technologies and the results that can be generated from them in various surveying and mapping situations. Exercises using static, and kinematic surveying will be done, including design and processing. Students will learn to use the National Geodetic Survey's (NGS's) OPUS system to perform and deliver networked observation results. In all cases, there is a concentration on the fundamental issues so that students will gain an understanding of the basic limitations of the system and how to extend them application to areas

not yet fully explored.

METHOD OF INSTRUCTION:

A variety of instructional methods may be used depending on content area. These include but are not limited to: lecture, multimedia, cooperative/collaborative learning, labs and demonstrations, projects and presentations, speeches, debates, and panels, conferencing, performances, and learning experiences outside the classroom. Methodology will be selected to best meet student needs.

COURSE OUTLINE:

- I. Fundamental concepts of spatial relationships of georeferencing in GNSS
- II. Concepts of the leading GNSS: Navigation, Tracking, and Positioning. Various GNSS surveys, methodologies, accuracies.
- III. How to use a handheld GNSS receiver, mark positions, and navigate to known positions
- IV. Concepts of Post processed and real time differential correction with GNSS
- V. Use of sub-meter accuracy GNSS receiver to establish positions with post-processed and real-time corrections. Navigate using real-time corrections.
- VI. Post-process GNSS field data using data from local reference station and data from the Continuous Operating Reference Station (CORS) network.
- VII. Real-time broadcast differences and corrections: Coast Guard Beacon DGNSS and Real-Time Kinematic GNSS.
- VIII. Access a variety of GNSS data sources: Local reference stations and Continuous Operating Reference Stations (CORS)
- IX. Commonly used coordinate systems, datums, and projections: Federal, state, and local governments, and private sector. Discuss geospatial analysis: Georeferencing, data formats, and geodatabases
- X. Use a survey grade GNSS receiver to conduct a static GNSS survey.
- XI. Post-process GNSS field data using: corrections from a local reference station and corrections from Continuous Operating Reference Station (CORS) network.
- XII. Use a survey grade GNSS receiver to conduct a Real-Time Kinematic (RTK) survey and navigate using RTK
- XIII. Establish geodetic control via existing NGS monuments and OPUS. Use as control for RTK. Discuss OPUS Projects
- XIV. Create a GNSS survey network and adjust it.

EXPECTED LEARNER OUTCOMES:

- A. The student will be able to use spatial referencing concepts and GNSS technology and its applications.
- B. The student will be able to acknowledge the impact that GNSS has had on the surveying industry.
- C. The student will be able to supply GNSS technology to the successful creation and maintenance of survey products relying on various levels of GNSS technology.

- D. The student will be able to use a handheld receiver to reestablish positions and navigate corrections.
- E. The student will understand the differences between post-processed and real time corrections.
- F. The student will be able to interpret from the Continuous Operating Reference Stations network.
- G. The student will be able to describe differences and corrections between DGNSS and GNSS.
- H. The student will be able to interpret and access related data sources.
- I. The student will be able to describe and understand geospatial analysis.
- J. The student will be able to use a survey grade receiver.
- K. The student will be able to post-process GNSS field data.
- L. The student will be able to describe, navigate and conduct Real-Time Kinematic surveys.
- M. The student will be able to establish geodetic control.
- N. The student will be able to create a GNSS survey network.

ASSESSMENT OF LEARNER OUTCOMES:

Student progress is evaluated by means that include, but are not limited to, exams, written assignments, and class participation.

SPECIAL NOTES:

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SYLLABUS

DATE OF LAST REVIEW: 6/03/2020

CIP CODE: 15.1102

SEMESTER: Departmental Syllabus

COURSE TITLE: Geographic Information System (GIS)

COURSE NUMBER: SURV 0106

CREDIT HOURS: 3

INSTRUCTOR: Departmental Syllabus

OFFICE LOCATION: Departmental Syllabus

OFFICE HOURS: Departmental Syllabus

TELEPHONE: Departmental Syllabus

EMAIL: Departmental Syllabus
KCKCC-issued email accounts are the official means for electronically communicating with our students.

PREREQUISITES: SURV-0102 Surveying II and SURV-0104 GNSS courses with a grade of C or better

REQUIRED TEXT AND MATERIALS: Please check with the KCKCC bookstore, <http://www.kckccbookstore.com/>, for the required texts for your particular class.

COURSE DESCRIPTION:

This course teaches fundamental concepts in the use of geographic information systems (GIS) to students preparing for work in the geospatial professions. This course will enable the student to understand spatial referencing concepts, in the use and application of Geographic Information Systems. Students will be introduced to GIS software systems that are used to collect, correct, map, and analyze geospatial data. Advanced topics in the use of GIS including spatial referencing concepts and data display concepts will be covered extensively, including surveying applications as well as other GIS applications in engineering, construction, and related industries. Students will create projects in several areas of applications in surveying and mapping.

METHOD OF INSTRUCTION: A variety of instructional methods may be used depending on content area. These include but are not limited to: lecture, multimedia, cooperative/collaborative learning, labs and demonstrations, projects and presentations, speeches, debates, and panels,

conferencing, performances, and learning experiences outside the classroom. Methodology will be selected to best meet student needs.

COURSE OUTLINE:

- I. Fundamental Concepts in Geographic Information Science
 - A. Definition of GIS
 - B. Vector and raster systems
 - C. Scale, resolution, map projection
 - D. Coordinate systems
 - E. Applications of GIS
- II. Geospatial Data
 - A. Georeferencing & Global Navigation Satellite Systems (GNSS)
 - B. Representing fields: raster, TIN, quadtrees, polygons
 - C. Uncertainty propagation
- III. Spatial Analysis
 - A. Quantitative & statistical methods; introduction to map algebra
 - B. Formulating geographic questions
 - C. GIS as a modeling tool
- IV. Information analysis: Georeferencing and stacking layers
- V. Create and modify new and existing GIS layers and databases.
- VI. Import GIS data from a variety of sources, create a new layer, and modify an existing layer.
- VII. Commonly used coordinate systems, datums, and projections: Federal, state, and local governments and private sector.
- VIII. Use GIS software to convert GIS data from one system to another: Coordinate systems, datum's, and projections.
- IX. Use of GIS: Perform elementary spatial analysis and understand the importance of spatial analysis in decision support.
- X. Discuss geospatial analysis: Georeferencing, data formats, and geodatabases
- XI. Create, modify, and maintain new and existing GIS layers and geodatabases.
- XII. Use of GIS: Perform elementary spatial analysis and understand the importance of spatial analysis in decision support.
- XIII. Plan, develop, conduct, manage, and complete an integrated GIS/GNSS project.

EXPECTED LEARNER OUTCOMES:

- A. The student will be able to define and describe the application of Geographic Information Systems (GIS)
- B. The student will be able to compare and contrast vector and raster GIS.
- C. The student will be able to modify new and existing GIS layers.
- D. The student will be able to evaluate the capabilities of various GIS programs.
- E. The student will be able to explain uncertainty as it relates to scale, resolution, and projection; discuss uncertainty propagation within a GIS.

- F. The student will be able to apply cartographic principles of scale, resolution, projection, and data management to a problem of a geographic nature.
- G. The student will be able to use spatial referencing concepts and GIS/GNSS technology and its applications.
- H. The student will be able to acknowledge the impact that GIS/GNSS has had on the surveying industry.
- I. The student will be able to apply the GIS and where applicable, GNSS technology, to the successful creation and maintenance of robust GIS databases.
- J. The student will be able to acknowledge the impact that GIS/GNSS has had on the surveying industry.
- K. The student will be able to perform and describe elementary spatial analysis and decision support.
- L. Learn the value and applications of GIS specifically to various projects specific to surveying or disciplines that use surveying data.

ASSESSMENT OF LEARNER OUTCOMES: Student progress is evaluated by means that include, but are not limited to, exams, written assignments, and class participation.

SPECIAL NOTES:

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SYLLABUS

DATE OF LAST REVIEW: 06/03/2020
CIP CODE: 15.1102
SEMESTER: Departmental Syllabus
COURSE TITLE: Boundary Control
COURSE NUMBER: SURV 0108
CREDIT HOURS: 3
INSTRUCTOR: Departmental Syllabus
OFFICE LOCATION: Departmental Syllabus
OFFICE HOURS: Departmental Syllabus
TELEPHONE: Departmental Syllabus
EMAIL: Departmental Syllabus
KCKCC-issued email accounts are the official means for electronically communicating with our students.

PREREQUISITES: SURV-0102 Surveying II, with a grade of C or better

REQUIRED TEXT AND MATERIALS: Please check with the KCKCC bookstore, <http://www.kckccbookstore.com> for the required text for your particular class.

COURSE DESCRIPTION:

This course teaches the fundamental knowledge required to perform land records research with deeds and other related records, survey records, and other land records preparatory to conducting property boundary surveys. The student will examine evidence of ownership, historical information, property descriptions, and legal requirements for reviewing and recording documents. Applications of the applicable portions of the Kansas Minimum Standards for Property Boundary Surveys as well as of the standards for land title surveys of the American Land Title Association (ALTA)/National Society of Professional Surveyors (NSPS) will be discussed. Various aspects of professional practice and ethics are also included.

METHOD OF INSTRUCTION:

A variety of instructional methods may be used depending on content area. These include but are not limited to: lecture, multimedia, cooperative/collaborative learning, labs and demonstrations, projects and presentations, speeches, debates, and panels, conferencing, performances, and learning experiences outside the classroom. Methodology will be selected to best meet student needs.

COURSE OUTLINE:

- I. Analyze and make conclusions about deviations between recorded information and found evidence.
- II. Understand how to apply the “four corners” doctrine and when extrinsic evidence may be used to fill gaps in the records pertaining to land title and ownership.
- III. Correlate technical, legal, and administrative facts.
- IV. Evaluate the reliability of all evidence discovered.
- V. Apply prescribed standards and historical values.
- VI. Provide a reasonable conclusion of title boundary locations of real property based on the proper legal doctrines, case law, statutes, and standards.
- VII. Principles of the PLSS Survey System used in Kansas.
- VIII. Proper records research and what to look for while performing a boundary survey. (Subdivision plats, prior surveys, road records, highway plans, etc.)
- IX. Introduction to and understanding boundary descriptions.
- X. Understanding professional practice requirements including document creation, and record keeping, such as Land Survey Reference Reports (LSRR).

EXPECTED LEARNER OUTCOMES:

- A. The student will be able to make conclusions about deviations between recorded information and evidence.
- B. The student will be able to understand the fundamental concepts of how to perform land records research with deeds and other related records.
- C. The student will be able to understand and evaluate discrepancies between title and property records of what appear to be the same tracts of land
- D. The student will be able to understand how to evaluate evidence of ownership, historical information, and property descriptions.
- E. The student will be able to evaluate boundary locations of real property based on doctrines, case law, statues and standards.
- F. The student will be able to understand how to apply the Kansas Minimum Standards for Property Surveys.
- G. The student will be able to have a working knowledge of the Kansas PLSS Surveying System and how it works.
- H. The student will be able to use GLO maps and plats to aid in Section corner recovery and retracement of the Original GLO Surveyors’ work.
- I. The student will be able to understand the significance of “Case Law” and how to know when it affects your survey.
- J. The student will be able to understand the requirements for document creation and record keeping.

ASSESSMENT OF LEARNER OUTCOMES:

Student progress is evaluated by means that include, but are not limited to, exams, written assignments, and class participation.

SPECIAL NOTES:

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SYLLABUS

DATE OF LAST REVIEW: 06/03/2020
CIP CODE: 15.1102
SEMESTER: Departmental Syllabus
COURSE TITLE: Real Property Law
COURSE NUMBER: SURV 0110
CREDIT HOURS: 3
INSTRUCTOR: Departmental Syllabus
OFFICE LOCATION: Departmental Syllabus
OFFICE HOURS: Departmental Syllabus
TELEPHONE: Departmental Syllabus
EMAIL: Departmental Syllabus
KCKCC-issued email accounts are the official means for electronically communicating with our students.

PREREQUISITES: SURV-0102 Surveying II, with a grade of C or better

REQUIRED TEXT AND MATERIALS: Please check with the KCKCC bookstore, <http://www.kckccbookstore.com> for the required text for your particular class.

COURSE DESCRIPTION:

This course teaches the legal principles of surveying including topics in boundaries, property law as applied to surveying, monumentation, deed interpretation, professional liability, and ethics. Also discussed are various principles of Kansas survey law, regulations such as Kansas Minimum Standards for Property Boundary Surveys, and the applicable portions of the standards for land title surveys of the American Land Title Association (ALTA)/National Society of Professional Surveyors (NSPS).

METHOD OF INSTRUCTION:

A variety of instructional methods may be used depending on content area. These include but are not limited to: lecture, multimedia, cooperative/collaborative learning, labs and demonstrations, projects and presentations, speeches, debates, and panels, conferencing, performances, and learning experiences outside the classroom. Methodology will be selected to best meet student needs.

COURSE OUTLINE:

- I. Identify ownership, transfer, and descriptions of real property
- II. Determine types of easements and reversions
- III. Evaluate boundary evidence

- IV. Discuss the impact of GNSS and GIS as it related to boundary law
- V. Demonstrate appropriate techniques for communicating with clients, the public, and other surveyors, along with project management techniques.
- VI. Discuss the impact of case law on the practice of land surveying.

EXPECTED LEARNER OUTCOMES:

- A. The student will be able to understand what land boundaries are and how they are created.
- B. The student will be able to understand principles of land ownership, transfer and descriptions of the parcels.
- C. The student will be able to understand the rights that accompany land ownership.
- D. The student will be able to understand the principles of writing and reading metes and bounds descriptions.
- E. The student will be able to understand the principles related to locating, reading and writing easements and reversions.
- F. The student will be able to understand the principles related to riparian boundaries.
- G. The student will be able to understand how to locate sequential and simultaneous conveyances.
- H. The student will be able to understand the principles of retracing surveys and the priority of calls in a description.
- I. The student will have a basic knowledge of the applicable laws, regulations, and standards associated with surveying, monumentation, deed interpretation, professional liability, and ethics.
- J. The student will be able to understand court case decisions and how it could possibly affect boundary surveys.
- K. The student will be able to understand rules followed by the GLO surveyors, along with the differences between Lost and Obliterated Corners in the Kansas PLSS.

ASSESSMENT OF LEARNER OUTCOMES:

Student progress is evaluated by means that include, but are not limited to, exams, written assignments, and class participation.

SPECIAL NOTES:

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SYLLABUS

DATE OF LAST REVIEW: 1/8/2021

CIP CODE: 15.1302

SEMESTER: Departmental Syllabus

COURSE TITLE: Survey CAD

COURSE NUMBER: SURV 0202

CREDIT HOURS: 3

INSTRUCTOR: Departmental Syllabus

OFFICE LOCATION: Departmental Syllabus

OFFICE HOURS: Departmental Syllabus

TELEPHONE: 913-334-1100

EMAIL: KCKCC-issued email accounts are the official means for electronically communicating with our students.

PREREQUISITE(S): ENGR-0106 Computer Aided Drafting

REQUIRED TEXT(S): Please check with the KCKCC bookstore, <http://www.kckccbookstore.com> for the required text for your particular class.

COURSE DESCRIPTION: This course will provide the student with information in the area of civil drafting. It will provide instruction from surveying to construction, courthouse research to artistic interpretation. It will further include GIS (Geographic Information Systems) as applied to civil drafting and the basic components of mapping.

METHOD OF INSTRUCTION: A variety of instructional methods may be used depending on content area. These include but are not limited to: lecture, multimedia, cooperative/collaborative learning, labs and demonstrations, projects and presentations, speeches, debates, and panels, conferencing, performances, and learning experiences outside the classroom. Methodology will be selected to best meet student needs.

COURSE OUTLINE:

- I. Introduction to Civil Drafting
 - A. General Maps
 - B. Map Requirements

- C. Cartography
- II. Surveying Fundamentals
 - A. Size and Shape of the Earth
 - B. Survey types
 - C. Measuring and Elevation
 - D. Traversing
 - E. Electronic Traversing
 - F. Global Position System
 - G. Location and Direction
 - H. Map Direction
 - I. Plots using Latitude and Departures
- III. Mapping Scales
 - A. Numerical Scales
 - B. Graphic Scales
 - C. Verbal Scales
 - D. Scale Conversion
 - E. Engineer Scales
 - F. Metric Scales
- IV. Mapping Symbols & Legal Descriptions and Plot Plans
 - A. Symbols Types
 - B. Special Techniques
 - C. Metes and Bounds
 - D. Lot and Block
 - E. Rectangular
 - F. Plot Plans
- V. Contour Lines, Profiles, and Highway Layout
 - A. Types of Contour Lines
 - B. Plotting Contour Lines from Field Notes
 - C. Enlarging Contour Maps
 - D. Contour Map Profiles
 - E. Profile Leveling
 - F. Plan and Profile
 - G. Highway Plan Layout
 - H. Highway Profile Layout
- VI. Earthwork
 - A. Highway Cut-and-Fill Layout
 - B. Cross Sections
 - C. Site Plan Cut-and-Fill Layout
 - D. Earthwork Calculations
- VII. Site Plans
 - A. Plan Views
 - B. Site Plan Requirements
 - C. Describing and Locating Property
 - D. Utilities on a Site Plan
 - E. Sewage Disposal Methods
 - F. Site Plan Layout

EXPECTED LEARNER OUTCOMES:

- A. The student will be able to identify maps and map requirements as they relate to civil drafting.
- B. The student will be able to demonstrate knowledge of surveying fundamentals as they relate to civil drafting.
- C. The student will be able to interpret mapping scales as they relate to civil drafting.
- D. The student will be able to interpret mapping symbols, legal descriptions, and plot plans.
- E. The student will be able to identify and interpret contour lines, profiles, and highway layouts as they relate to civil drafting.
- F. The student will be able to identify and interpret earthwork civil drafting drawings.
- G. The student will be able to demonstrate knowledge of site plans.

COURSE COMPETENCIES:

Upon successful completion of this course:

The student will be able to identify maps and map requirements as they relate to civil drafting.

- 1. The student will be able to interpret aeronautical charts.
- 2. The student will be able to interpret cadastral maps.
- 3. The student will be able to interpret engineering maps.
- 4. The student will be able to interpret geographical maps.
- 5. The student will be able to interpret hydrological maps.
- 6. The student will be able to interpret military maps.
- 7. The student will be able to interpret planning maps.
- 8. The student will be able to demonstrate knowledge of cartography.
- 9. The student will be able to interpret nautical maps.
- 10. The student will be able to demonstrate knowledge of the requirements of maps.

The student will be able to demonstrate knowledge of surveying fundamentals as they relate to civil drafting.

- 11. The student will be able to identify four ways in which the size and shape of the earth may be shown.
- 12. The student will be able to identify five different types of surveys.
- 13. The student will be able to identify and interpret measurements and elevation symbols as found on civil drafting drawings.
- 14. The student will be able to interpret data found by traversing.
- 15. The student will be able to interpret data found by electronic traversing.
- 16. The student will be able to interpret data found by using the global system.
- 17. The student will be able to interpret location.
- 18. The student will be able to interpret direction.
- 19. The student will be able to interpret map direction.
- 20. The student will be able to interpret plots using latitude and departures.

The student will be able to interpret mapping scales as they relate to civil drafting.

- 21. The student will be able to identify and interpret numerical scales.

22. The student will be able to identify and interpret graphic scales.
23. The student will be able to identify and interpret verbal scales.
24. The student will be able to identify and interpret engineering scales.
25. The student will be able to identify and interpret metric scales.
26. The student will be able to make scale conversions.

The student will be able to interpret mapping symbols, legal descriptions, and plot plans.

27. The student will be able to identify and interpret relief symbols.
28. The student will be able to identify and interpret water symbols.
29. The student will be able to identify and interpret vegetation symbols.
30. The student will be able to identify and interpret feature symbols.
31. The student will be able to identify and interpret topographic symbols.
32. The student will be able to identify and interpret rocky terrain symbols.
33. The student will be able to identify and interpret depression symbols.
34. The student will be able to identify and interpret sand dune symbols.
35. The student will be able to identify and interpret a metes and bounds and bounds legal description.
36. The student will be able to identify and interpret a lot and block legal description.
37. The student will be able to identify and interpret a rectangular plot plan.
38. The student will be able to create a plot plan.

The student will be able to identify and interpret contour lines, profiles, and highway layouts as they relate to civil drafting.

39. The student will be able to create a drawing using depression contour lines.
40. The student will be able to create a drawing showing rapids and whirlpool contour lines.
41. The student will be able to enlarge contour maps.
42. The student will be able to create contour map profiles.
43. The student will be able to interpret slope by reading contour lines.
44. The student will be able to create and assign values to contour lines.
45. The student will be able to create a contour map using a grid layout.
46. The student will be able to enlarge a contour map using Architectural Software.
47. The student will be able to create a map using profile construction techniques.
48. The student will be able to interpret profile leveling measurements to create a map.

The student will be able to identify and interpret earthwork civil drafting drawings.

49. The student will be able to use the plan and profile method to create a highway layout.
50. The student will be able to identify and interpret the point of a reverse curve.
51. The student will be able to calculate the length of a curve.
52. The student will be able to calculate the delta angle on a highway layout.
53. The student will be able to interpret data and create a drawing by analyzing data from a centerline route survey.
54. The student will be able to create a highway cut-and-fill cross sectional area.
55. The student will be able to create a site plan cut-and-fill cross sectional area.

The student will be able to demonstrate knowledge of site plans.

56. The student will be able to interpret plan views.
57. The student will be able to interpret site plan requirements.
58. The student will be able to describe and locate property.
59. The student will be able to identify utilities and sewage disposal methods.
60. The student will be able to identify site plan layouts.

ASSESSMENT OF LEARNER OUTCOMES:

Assessment methods may include, but are not limited to, the following: Homework, Assignments, Quizzes, Class Participation, Chapter Tests, and Final Exam. The grading scale and the process for calculating the course grades are to be determined by the individual instructors. This information will be included in each instructor's syllabus.

SPECIAL NOTES:

This syllabus is subject to change at the discretion of the instructor. Material included is intended to provide an outline of the course and rules that the instructor will adhere to in evaluating the student's progress. However, this syllabus is not intended to be a legal contract. Questions regarding the syllabus are welcome any time.

Kansas City Kansas Community College is committed to an appreciation of diversity with respect for the differences among the diverse groups comprising our students, faculty, and staff that is free of bigotry and discrimination. Kansas City Kansas Community College is committed to providing a multicultural education and environment that reflects and respects diversity and that seeks to increase understanding.

Kansas City Kansas Community College offers equal educational opportunity to all students as well as serving as an equal opportunity employer for all personnel. Various laws, including Title IX of the Educational Amendments of 1972, require the college's policy on non-discrimination be administered without regard to race, color, age, sex, religion, national origin, physical handicap, or veteran status and that such policy be made known.

Kansas City Kansas Community College complies with the Americans with Disabilities Act. If you need accommodations due to a documented disability, please contact the Director of the Academic Resource Center, in Rm. 3354 or call at: 288-7670.

All enrolled students at Kansas City Kansas Community College are subject to follow all rules, conditions, policies and procedures as described in both the Student Code of Conduct as well as the Student Handbook. All Students are expected to review both of these documents and to understand their responsibilities with regard to academic conduct and policies. The Student Code of Conduct and the Student Handbook can be found on the KCKCC website.

SYLLABUS

DATE OF LAST REVIEW: 06/03/20

CIP CODE: 15.1102

SEMESTER: Departmental Syllabus

COURSE TITLE: Advanced Survey Concepts

COURSE NUMBER: SURV 0204

CREDIT HOURS: 3

INSTRUCTOR: Departmental Syllabus

OFFICE LOCATION: Departmental Syllabus

OFFICE HOURS: Departmental Syllabus

TELEPHONE: Departmental Syllabus

EMAIL: Departmental Syllabus
KCKCC-issued email accounts are the official means for electronically communicating with our students.

PREREQUISITE(S):
SURV 0104 (Global Navigation Satellite Systems) and SURV 0202 (Survey CAD) – Survey Emphasis courses with a grade of C or better

REQUIRED TEXT:
Please check with the KCKCC bookstore, <http://www.kckccbookstore.com> for the required text for your particular class.

COURSE DESCRIPTION:

This course covers various aspects of surveying that are covered in other courses, but which advances those topics to make the student ready for professional practice. The material covers writing and interpreting legal descriptions, principles of subdivision design, use of plane coordinate systems including understanding the theory of plane projection systems, and advanced error analysis.

METHOD OF INSTRUCTION:

A variety of instructional methods may be used depending on content area. These include but are not limited to: lecture, multimedia, cooperative/collaborative learning, labs and demonstrations, projects and presentations, speeches, debates, and panels, conferencing, performances, and learning experiences outside the classroom. Methodology will be selected to best meet student needs.

COURSE OUTLINE:

- I. Legal Descriptions
 - a. Writing principles
 - b. Interpreting and applying legal principles of land surveying boundaries
 - c. Applying principles of description interpretation for lands conveyed with sequential conveyances
 - d. Applying principles of description interpretation for lands conveyed with simultaneous conveyances including conveyances that are aliquot parts of the USPLSS
- II. Principles of Subdivision Design
 - a. Planning and zoning concepts
 - b. Local, county and state level statutes and regulations on subdivision design
 - c. Achieving aesthetic design
 - d. Layout of streets and lots to achieve objectives
 - e. Street horizontal and vertical layout
 - f. Easement facilitation
 - g. Title block and survey notes requirements
- III. Use of State Plane Coordinate Systems
 - a. General discussion of projection systems
 - b. Kansas State Plane Coordinate System
 - c. Universal Transverse Mercator System
 - d. Kansas Regional Coordinate System
- IV. Surveying Errors Analysis
 - a. Error combination in linear and area applications
 - b. Classes of typical systematic and random errors that occur with use of various types of surveying instrumentation including automatic levels, total stations, GNSS, LiDAR and unmanned airborne systems
 - c. Least squares – understanding the principles so that software can be correctly used
 - d. Analysis of individual measurements
 - e. Analysis of surveys
 - f. Survey Design

EXPECTED LEARNER OUTCOMES:

- A. The student will be able to write land descriptions of varying levels of complexity.
- B. The student will be able to interpret land descriptions of varying levels of complexity.
- C. The student will be able to understand how to assess subdivision design in the context of client needs and existing statutes and regulations.
- D. The student will be able to understand the principles of projections that underlie all plane projection systems.
- E. The student will be able to perform mathematical calculations forward and back to convert ground level surveys to/from state plane coordinate surveys.
- F. The student will be able to learn how errors, systematic and random are introduced into surveys, from all three classes of error sources.
- G. The student will be able to understand the principles of least squares so that as a professional, the student will be able to apply the principles of data analysis correctly.

ASSESSMENT OF LEARNER OUTCOMES:

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**PERKINS ELIGIBILITY
REQUEST FORM**

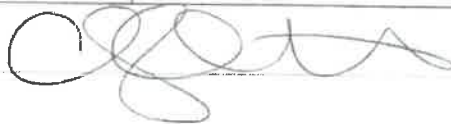
Carl D. Perkins Funding Eligibility Request Form

Strengthening Career and Technical Education for the 21st Century Act

CA-1c Form (2020)

Name of Institution	Kansas City Kansas Community College
Name, title, phone, and email of person submitting the Perkins Eligibility application <i>(contact person for the approval process)</i>	Cheryl Runnebaum Dean of Career and Technical Education (913) 288- 7811 crunnebaum@kckcc.edu
Name, title, phone, and email of the Perkins Coordinator	Donna Shawn Director, Technical Programs/Perkins Coordinator (913) 288-7805 dshawn@kckcc.edu
Program Name	Surveyor Technician
Program CIP Code	15.1102
Educational award levels <u>and</u> credit hours for the proposed request	Certificate B: 33 credits AAS: 61 credits
Percentage of tiered credit hours for the educational level of this request	Certificate B: 90.91 AAS: 49.19
Number of concentrators for the educational level	This is a new program. The projected enrollment for year one is 10 fulltime and 10 part-time
Does the program meet program alignment?	N/A (There is no program alignment for this program)
Justification for conditional approval: <i>(this section must reference information found within the Local Needs Assessment)</i>	No information pertaining to the Surveyor industry could be found in the local needs assessment. However; the guidelines set forth to determine if a program should be offered by a college have been met.

Signature of College Official



Date 12, 20, 20

Signature of KBOR Official

Date