

To: Board of Education

From: Jerri Kemble, assistant superintendent, leading, learning & technology
Dr. Jennifer Bessolo, director, curriculum
Patrick Kelly, director, career and technical education
Rick Henry, director, high school support
Myron Graber, principal, Free State High School
Dr. Matthew Brungardt, principal, Lawrence High School

Re: Proposal for additional high school course offerings to include:

1. Revised course offerings for the Law, Public Service and Safety and Information Technology pathways.
2. New course offerings for the Graphic Design and Engineering pathways.
3. Additional Concurrent Course Offerings in partnership with the University of Kansas beginning 2019-2020

Date: November 26, 2018

Background:

The Lawrence Public Schools currently provide courses in 28 career pathways. Each of these pathways require a sequence of courses that include introductory, technical and application level learning. A total of 3.0 credits (6 semesters) are required for each pathway. Available courses for each pathway are determined by state advisory committees and revised by the Kansas State Department of Education (KSDE) as scheduled. Some courses may be required for pathway approval. Technical and application level courses within an approved pathway provide an additional .5 funding.

USD 497 currently offers two concurrent course offerings in partnership with the University of Kansas: English 101 and College Algebra. Successful completion of these courses provides juniors and senior students with credit towards high school graduation requirements as well as fulfilling general education credits at the collegiate level. To continue work towards our state and district goals of postsecondary success, we have been working to expand the number of concurrent course offerings provided to students.

Rationale:

This proposal uniquely supports all four Board Goals as we expand course offerings and opportunities for students pursuing multiple pathways to post-secondary success:

1. Develop and align district expectations for curriculum, instruction and assessment to raise the achievement of all students.
2. Expand communication and community connections through increased engagement.
3. Enhance programming and supports to meet the varied academic, social, emotional and behavioral needs of each student.

4. Allocate capital and human resources to deliver quality educational programs and services in adaptable, high-performance facilities.

Each year the director of career and technical education reviews state adopted pathways and compares course offerings and requirements for the upcoming school year with what USD 497 offers. Additionally, curriculum is reviewed with teachers and pathway advisory boards bi-annually. When appropriate, longer, more detailed, curriculum reviews are scheduled and completed. Beginning in the summer of 2018-19 curriculum review was initiated for the Engineering, Architecture and Construction, Health Science, Law and Public Safety, and Government and Public Administration pathways. Changes for the Information Technology pathways (Computer Support, Programming, Networking and Web and Digital Communications) were initiated by the College & Career Center administration and staff. All recommendations below have been reviewed and feedback has been requested from teachers, high school building principals and teaching and learning district administration. None of the recommended career and technical education courses will require an increase in staffing for 2019-2020.

For concurrent course offerings, we would like to expand our partnership with the University of Kansas in providing our juniors and senior students with 11 additional concurrent course offerings in general education courses, making a total of 13 concurrent courses that students may choose from. Unique to Lawrence students only, Jayhawk Blueprint is the partnership program with KU that will increase post secondary success opportunities, where USD 497 students could graduate high school with up to a year of their general education credits completed towards an undergraduate degree. The concurrent course offerings we are proposing are part of the University of Kansas' core curriculum and transfer anywhere that KU credits would transfer. In most if not all cases, these courses would be taught by certified USD 497 instructors, and In addition to the academic opportunity, students would be receiving college credit upon successful completion of the course at a third of the cost they would pay at the University of Kansas as a traditional student.

Recommendation:

The following courses are recommended for adoption to begin in the fall of 2019-20:

Intro to Engineering (9-10) - 1 semester

The goal of this course is to provide students a broad outline of engineering and help them decide on a career in engineering. The course explores the different disciplines of engineering and providing participants with a broad background in different areas of engineering. Students will learn how to apply current knowledge to the engineering design process, including brainstorming, sketching, drawing and building simple prototypes.

Intro to Law, Public Service and Safety (9 - 10) - 1 semester

This introductory level course provides students with knowledge of occupations and available in the Law, Public Service and Safety fields. The course will examine the legal system, professional conduct, safety, types of crime and career options. An individual LPSS related project will be completed, presented and displayed by each student. Field

trips and guest speakers from the Lawrence Police Department, Douglas County Sheriff, Douglas County District Attorney and Lawrence and Douglas County Fire and Medical are part of the course.

Law and Public Service I (11 - 12) - 1 semester

The course will examine law-related material and serving the general public in a variety of occupations. It is designed for students interested in the law, the legal system, public service, police services and fire science. Students in the Law and Public Service I will gain the knowledge and skills necessary for post-secondary experiences in the professions of fire rescue or law enforcement. Students will learn specific content knowledge, hands-on skills, and employment skills which focus on teamwork, problem-solving, decision making, speaking and listening, and the necessary physical skills involved within the professions. Partnerships and field trips from the Lawrence Police Department, Douglas County Sheriff, Douglas County District Attorney and Lawrence and Douglas County Fire and Medical will enhance the program.

Law and Public Service II (11-12) - 1 semester

Law and Public Service II is an advanced course in the Law and Public Service pathway. This course will look at meeting the needs of the culture through positions within Government and Public Service. Topics will include the role of government agencies in providing services for the US population and the professional traits required of those in this field. In addition, it will look at the problem solving and critical thinking processes, and the leadership and teamwork practices. Law-related material and career options. It is designed to be an extension of Law and Public Service I. An individual will participate in project-based learning and complete a Law, Government and Public Admin-related project for the Lawrence Police Department, Douglas County Sheriff, Douglas County District Attorney and/or Lawrence and Douglas County Fire and Medical.

Law and Public Safety Internship (12) - 1 semester

The goal for every Law, Public Safety student is to use their secondary experiences to further define their post-secondary plans. Students in this course may take courses such as Intro to Criminal Justice or Criminology through Johnson County Community College. Through involvement in the Lawrence College and Career Center qualified seniors may participate in a Professional Learning Experience (PLE) to enhance skill development, attain a certification, license or degree and experience greater student success in the 21st century workforce. Internship and Mentors will be assigned from the Lawrence Police Department, Douglas County Sheriff, Douglas County District Attorney and Lawrence and Douglas County Fire and Medical.

Public Service Internship (12) - 1 semester

The goal for every Public Service student is to use their secondary experiences to further define their post-secondary plans. Students in this course may take courses such as Intro to Sociology or Political Science through Johnson County Community College. Through involvement in the Lawrence College and Career Center qualified seniors may participate in a Professional Learning Experience (PLE) to enhance skill development, attain a certification, license or degree and experience greater student success in the 21st century workforce. Internship and Mentors will be assigned from the

Lawrence Police Department, Douglas County Sheriff, Douglas County District Attorney and Lawrence and Douglas County Fire and Medical.

EMT - Emergency Medical Technician - (12) - 1 semester

This program is designed for individuals interested in providing medical care to patients in the pre-hospital setting. It will provide the participants with opportunities to gain information, skills and attitudes necessary for certification and practice as an emergency medical technician (EMT) in the state of Kansas. This program has been approved by the Kansas Board of Emergency Medical Services (BEMS). It addresses information and techniques currently considered the responsibility of the EMT according to the United States Department of Transportation, National Standard Curriculum. The program consists of didactic instruction, practical skill training and clinical experience. Students are also required to attend Saturday session(s) as necessary. Saturday dates and times will be announced during the first class session. Classroom instruction includes anatomy, physiology, recognition and care of medical emergencies and trauma-related injuries. CPR, bandaging, splinting, childbirth techniques and airway management are among the skills taught. An extrication session will give students hands-on experience with automobile accident situations. Upon instructor recommendation, students will participate in clinical and field observation. All transportation to and from off-campus sites is the responsibility of the student. Students completing this course with a minimum grade of "C" will be allowed to sit for the Kansas EMT State Certification examination and receive JCCC certificate of completion.

Computer Science Essentials (10 - 12) - 1 semester

Students will develop an understanding of computer science concepts and use computational thinking skills to solve problems through a variety of technology platforms. Students also develop skills in collaboration and teamwork, build their vocabulary, and collaborate just as computing professionals do to create products that address topics and problems important to them. This course provides a rich technical foundation for continued study in CyberSecurity, Web Page Design, Digital Electronics or Computer Programming.

Digital Electronics (10 - 12) - 1 semester

From smartphones to appliances, digital circuits are all around us. This course provides a foundation for students who are interested in electrical engineering, electronics, or circuit design. Students study topics such as combinational and sequential logic and are exposed to circuit design tools used in industry, including logic gates, integrated circuits, and programmable logic devices.

Computer Programming - Game Design (10 - 12) - 1 semester

Computer Programming - Game Design teaches the fundamentals of computer programming as well as some advanced features of the Python language. Students use what they learn in this course to build simple console-based games.

HTML and CSS (11 - 12) - 1 semester

This course will cover the essential skills needed to create responsive websites, using HyperText Markup Language (HTML) and Cascading Style Sheets (CSS). Students will be introduced to the concepts, foundations, syntax and structure of HTML and CSS. Additional topics include the use of File Transfer Protocol (FTP) to publish websites and

validation to web standards established by the World Wide Web Consortium (W3C) and other organizations.

Intro to Game Development (11 - 12) - 1 semester

This course covers the basics of game design and production. Topics include the fundamentals of managing game development, development of a plan for a game, the game production process, the history and business of games, and the various job roles in the industry.

Programming Fundamentals (11 - 12) - 1 semester

In this introductory course, students will create interactive computer applications that perform tasks and solve problems. Students will design, develop and test object-oriented programs that utilize fundamental logic, problem-solving techniques and key programming concepts.

Project Management - Networking/Computer Support/Web and Digital Communications/Computer Programming (11-12) - 1 semester

This course gives students the opportunity to complete an internship or work cooperatively with other students to apply what they learned in Computer Science Essentials and Cybersecurity, Web Page Design, Computer Programming - Game Design or Digital Electronics. The course provides a work-based or project-based curriculum for the student to solve real world problems.

Adv. Graphic Design - Project Management (11-12) - 1 semester

This course will focus on the use of the student's total graphic design capability and technical knowledge in solving graphic design problems of professional scope and complexity. This course will develop and further their skills in project-management, teamwork and leadership. Students will work with a student marketing team to complete professional projects for "real-world" clients.

The following courses will be archived:

Government and Public Administration
Computer Technology: Support
Computer Technology: Hardware

The following courses will have title changes:

Engineering Design - Engineering I and Engineering I
Intro to IT and Technology - Intro to Information Technology
App Development - Programming II
Intro to Human and Public Services - Intro to Human Services
Media and Communications I & II - Video Production II and Media and Public Relations

Concurrent Course Offerings

New Concurrent Courses Proposed (1 semester courses) through partnership with the University of Kansas:

- English 102 Critical Reading and Writing
- COMS 130 Speaker-Audience Communication
- BIOL 100 Principles of Biology
- Math 365 Elementary Statistics
- HIST 128 History of the United States Through the Civil War
- HIST 129 History of the United States After the Civil War
- POLS 110. Introduction to U.S. Politics
- PSYC 104. General Psychology
- ANTH 160. The Varieties of Human Experience
- SPAN 107, 220, or 329 Elementary or Intermediate Spanish Conversation

Full Concurrent Curriculum Sequence and Advanced Placement Comparisons-USD 497

KU Course Title and Description	High School Credit	Course Prerequisite	HS Course Sequence Options	Location Offered	High School AP Course Offering	AP Score	College Credit or Higher Placement
<p>ENGL 101. Composition. 3 Hours GE21 / U. Instruction and practice in writing in a variety of rhetorical contexts, including academic ones. LEC.</p> <p><u>(Current Course Option 2018-2019)</u></p>	English	English 10 or Advanced English 10	Engl 9/Adv Engl 9 Engl 10/Adv Engl 10 (course taken in 11th or 12th grade)	Free State LHS	AP English Literature and Comp	3-4 4+	3 hours, ENGL 101 6 hours, ENGL 102 and 102
<p>ENGL 102. Critical Reading and Writing. 3 Hours GE21 / U. Builds upon the instruction in writing of ENGL 101, emphasizing critical thinking</p>	English	English 101	Engl 9/Adv Engl 9 Engl 10/Adv Engl 10 (course taken in 11th or 12th grade)	Free State LHS	AP English Literature and Comp	3-4 4+	3 hours, ENGL 101 6 hours, ENGL

<p>through careful, thoughtful reading and writing. Also instructs in the evaluation and use of secondary sources.</p> <p>Prerequisite: Completion of ENGL 101 or its equivalent, or an ACT score of 27-31, or an SAT score of 600-649, or an AP exam score of 3 on either the Literature and Composition exam or the Language and Composition exam, or an IB score of 5. LEC.</p>							102 and 102
<p>COMS 130. Speaker-Audience Communication. 3 Hours GE22 / U. Study of rhetorical theory and its application to the preparation, presentation, and criticism of oral discourse in audience situations. Special consideration of listening behavior and of the ethical conduct of speech in a free society. This course fulfills the College argument and</p>	English	English 10 or Advanced English 10	Engl 9/Adv Engl 9 Engl 10/Adv Engl 10	Free State LHS	No AP Course Offered		

reason requirement. LEC.							
BIOL 100 Principles of Biology 3 Hours NB GE3N / N. Intended for non-science majors. The basic concepts of biology at the cellular, organismal, and population levels of organization and their applications to humans and modern society. LEC	Science	Chemistry or Advanced Chemistry	9th-Biology or Advanced Bio 10th-Chem or Advanced Chem or Physics	Free State LHS	AP Biology	3-4 5	3 hours, BIO 100 4 hours, BIO 150
MATH 101. College Algebra. 3 Hours GE12 / U. Coordinate systems, functions and their graphs; linear, quadratic, general polynomial, rational, exponential, and logarithmic functions; equations and inequalities; linear and non-linear systems and matrices. Not open to students with credit in MATH 104 . Prerequisite: MATH 002, or two years of high school algebra and a score of 22	Math	Algebra II or Advanced Algebra II	9th/10th/11th Grade: Fundamentals in Math Intro to Alg Algebra I Algebra II or Advanced Algebra II Geometry or Advanced Geometry Analysis PreCalculus Algebra for the College Bound AP Calculus	Free State LHS	No AP Course Offered		

<p>or higher on ACT mathematics, or a qualifying score on the mathematics placement test. LEC.</p> <p>(Current Course Option 2018-2019)</p>							
<p>Math 365 Elementary Statistics Elementary descriptive statistics of a sample of measurements; probability; the binomial, Poisson, and normal distributions, populations and sampling from populations; simple problems of statistical inference. May not be counted for junior-senior credit toward a major in mathematics. Not open to students with credit in DSCI 202, BIOL 570, MATH 465, MATH 526, or MATH 628. Prerequisite: MATH 101, MATH 104, or two years of high school algebra and a score of 26 or higher on ACT mathematics, or a qualifying score on the mathematics</p>	Math	PreCalculus or Analysis	9th/10th/11th Grade: Fundamentals in Math Intro to Algebra Algebra I Algebra II or Advanced Algebra II Geometry or Advanced Geometry Analysis PreCalculus Algebra for the College Bound	Free State LHS	AP Statistics	3+	3 hours, MATH S365

placement test. LEC.							
<p>HIST 128. History of the United States Through the Civil War. 3 Hours HT GE3H / H. A historical survey of the United States from the peopling of the continent through the Civil War. This survey is designed to reflect the diversity of the American experience, to offer the student a chronological perspective on the history of the United States, and to explore the main themes, issues, ideas, and events which shaped that history. LEC.</p>	Social Studies	Modern World History or AP European History	<p>9th-AP Human Geography or Social Studies elective</p> <p>10th-Modern World History or AP European History</p>	Free State LHS	AP US History	3 4+	<p>3 hours, HIST 128</p> <p>6 hours, HIST 128 and 129</p>
<p>HIST 129. History of the United States After the Civil War. 3 Hours HT GE3H / H. A historical survey of the American people from Reconstruction to the present. This survey is designed to reflect the diversity of the American experience, to offer the student a</p>	Social Studies	HIST 128	<p>9th-AP Human Geography or Social Studies elective</p> <p>10th-Modern World History or AP European History</p>	Free State LHS	AP US History	3 4+	<p>3 hours, HIST 128</p> <p>6 hours, HIST 128 and 129</p>

chronological perspective on the history of the United States, and to explore the main themes, issues, ideas, and events that shaped American history. LEC.							
POLS 110. Introduction to U.S. Politics. 3 Hours SF GE3S / S. An introduction to basic American governmental institutions, political processes, and policy. LEC.	Social Studies Fulfills Gov't Req.	Modern World History or AP European History	9th-AP Human Geography or Social Studies elective 10th-Modern World History or AP European History	CCC or KU campus	AP Gov't. and Politics	3+ 3+	3 hours, POLS 150 3 hours, POLS 110
PSYC 104. General Psychology. 3 Hours SI GE3S / S. A basic introduction to the science of psychology. LEC.	Social Studies	Modern World History or AP European History	9th-AP Human Geography or Social Studies elective 10th-Modern World History or AP European History	CCC or KU campus	No AP Course Offered		
ANTH 160. The Varieties of Human Experience. 3 Hours NW AE42/GE3H/GE3S / S/W. An introduction to basic concepts and themes in	Social Studies	Modern World History or AP European History	9th-AP Human Geography or Social Studies elective 10th-Modern World History or AP	CCC or KU campus	No AP Course Offered		

<p>cultural anthropology by means of the comparative study of selected cultures from around the world, for the purpose of appreciating cultural diversity. Emphasis is on systems of belief and meaning. Not open to students who have taken ANTH 360. LEC.</p>			European History				
<p>Spanish Sequence Concurrent Courses-Up to 9 hours</p> <p>SPAN 107. Elementary Spanish Conversation. 1-4 Hours U. Activities to improve elementary level conversation skills. Does not fulfill any portion of the College of Liberal Arts and Sciences foreign language requirement. Available only to study abroad participants. LEC.</p> <p>SPAN 220. Intensive Intermediate Spanish. 6 Hours U / F3 / F4.</p>	World Lang or Elective Credit	To Be Determined (Spanish I and II)	To Be Determined	Free State LHS	Placement Exam in KU		<p>3rd Semester Course-3 hours</p> <p>4th Semester Course-6 hours</p> <p>5th Semester Course-9 hours</p>

<p>This course is designed for students who would like to acquire proficiency in Spanish more rapidly. The material covered in the course is the same as in SPAN 212 and 216. Not open to native speakers of Spanish. Available only to study abroad participants in KU's Summer Language Institute in Barcelona, Spain.</p> <p>Prerequisite: SPAN 108 or SPAN 111, with a grade of A or B. LEC.</p> <p>SPAN 329. Intermediate Spanish Conversation II. 1 Hour U / FP. Two class meetings per week. Continuation of SPAN 328. Not open to native speakers of Spanish. Prerequisite: SPAN 328 or consent of instructor. LEC.</p>							
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Motion:

"I move that the Board of Education approve the recommended courses for adoption beginning in 2019-20."