CAREER AND TECHNICAL EDUCATION
DUAL CREDIT PATHWAY ALIGNMENT MODELS

KENTUCKY DEPARTMENT OF EDUCATION
OFFICE OF CAREER AND TECHNICAL EDUCATION

CAREER AND TECHNICAL EDUCATION
SECONDARY TO POSTSECONDARY PATHWAY ALIGNMENT MODELS

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Purpose and Guidance

KCTCS and KDE have partnered to create dual credit model pathways for the most in-demand technical programs across the state. These models are the preferred course sequence for high school students to allow seamless entry into the KCTCS AAS track upon high school graduation; however, colleges and school districts may develop alternative models based on local needs and the availability to teach a course for dual credit. Each KCTCS institution determines the availability of these courses for dual credit based on having a credentialed faculty member to teach the course for dual credit at the college or high school and the availability of required lab and equipment, and at times, additional credentialing requirements for a specific program.

If the state model will not work locally, or if a pathway is needed for a program that does not have a state model, one will have to be developed locally. The intent of a pathway is to create a seamless ten-course dual credit sequence (to maximize the scholarships available to students) from high school through college.

ACCOUNTING
Secondary-Postsecondary Pathway
Effective date: 2019-2020

Postsecondary Institution: KCTCS (Institutions TBD)
Secondary School:

Pathway: Accounting AAS
College Credit: 30-42 hours in HS out of 63 credits

Grade	General Education	Technical Core	Diploma, Certification(s), Certificate(s), Degree(s)
9	o English I (1) o Algebra I (1) o Biology I (1) o Social Studies (1) o Physical Education (.5) o Health (.5)	o CIT 105 – Introduction to Computers (3) **OR** OST 105 – Introduction to Information Systems (3) o BAS 160 – Introduction to Business (3)	
10	o English II (1) o Geometry (1) o Science Course (1) o Social Studies (1) o Visual and Performing Arts (1)	o ACC 201 – Financial Accounting (3) o CIT 130 – Productivity Software (3) **OR** OST 240 – Software Integration (3) **OR** BAS 110 – Worksheets Business Application (3)	
11	o COM 181 – Oral Communications (3) **OR** COM 252 – Intro to Interpersonal Communications (3) o Mathematics (1) o Science Course (1) o HIS 108 – History of the US Through 1865 (3) **OR** HIS 109 – History of the US Since 1865 (3)	o ACT 196 – Payroll Accounting (3) o ACT 279 – Computerized Accounting Systems (3)	KCTCS Payroll Accounting Specialist Certificate
12	o ENG 101 – Writing I (3) o STA 220 – Statistics (3) o BIO 112 – Intro to Biology o ECO 101 – Contemporary Economic Issues (3)	o BAS 120 – Personal Finance (3) o ACC 202 – Managerial Accounting (3)	KCTCS General Business Certificate High School Diploma
13	o ENG 102 (3)	Fall: o ACT 281 – Individual Accounting (3) o ACT 286 – Financial Accounting Topics (3) o BAS 260 – Professional Development & Protocol (3) o BAS 270 – Business Employability Seminar (1) Spring: o BAS 267 – Introduction to Business Law (3) o BAS 282/MKT 282 – Principles of Marketing (3) o BAS 283/MGT 283 – Principles of Management (3)	KCTCS Accounting Certificate KCTCS Accounting Recordkeeping Specialist Certificate KCTCS Business Transfer Certificate KCTCS Accounting AAS Diploma & AAS

Grade	General Education	Technical Core	Diploma, Certification(s), Certificate(s), Degree(s)
9	o English I (1) o Algebra I (1) o Biology I (1) o Social Studies (1) o Physical Education (.5) o Health (.5)		
10	o English II (1) o Geometry (1) o Science Course (1) o Social Studies (1) o Visual and Performing Arts (1)		
11	o COM 181 – Oral Communications (3) **OR** COM 252 – Intro to Interpersonal Communications (3) o Mathematics (1) o Science Course (1) o HIS 108 - History of the US Through 1865 (3) **OR** HIS 109 -History of the US Since 1865 (3)	o CIT 105 – Introduction to Computers (3) **OR** OST 105 – Introduction to Information Systems (3) o BAS 160 – Introduction to Business (3)	
12	o ENG 101 – Writing I (3) o STA 220 – Statistics (3) o BIO 112 – Intro to Biology & Lab o ECO 101 – Contemporary Economic Issues (3)	o ACC 201 – Financial Accounting (3) o CIT 130 – Productivity Software (3) **OR** OST 240 – Software Integration (3) **OR** BAS 110 – Worksheets Business Application (3)	KCTCS General Business Certificate High School Diploma
13	o ENG 102 (3)	Fall: o ACT 196 – Payroll Accounting (3) o ACT 279 – Computerized Accounting Systems (3) o BAS 120 – Personal Finance (3) o ACC 202 – Managerial Accounting (3) Spring: o ACT 281 – Individual Accounting (3) o ACT 286 – Financial Accounting Topics (3) o BAS 260 – Professional Development & Protocol (3) o BAS 270 – Business Employability Seminar (1) o BAS 267 – Introduction to Business Law (3)	KCTCS Payroll Accounting Specialist Certificate KCTCS Accounting Certificate KCTCS Accounting Recordkeeping Specialist Certificate KCTCS Business Transfer Certificate
14		Fall: o BAS 282/MKT 282 – Principles of Marketing (3) o BAS 283/MGT 283 – Principles of Management (3)	KCTCS Accounting AAS Diploma & AAS

Note: these are model pathways. Each high school will have to develop its pathway based on the college's dual credit course offerings.

ADMINISTRATIVE OFFICE TECHNOLOGY – ADMINISTRATIVE MANAGEMENT

Secondary-Postsecondary Pathway
Effective date: 2020-2021

Postsecondary Institution: KCTCS (Institutions TBD)

Secondary School:

Pathway: Administrative Office Technology - Administrative Management Track

College Credit: 31-43 Hours in HS out of 61 credits

Grade	General Education	Technical Core	Diploma, Certifications(s), Certificate(s), Degree(s)
9	o English I (1) o Algebra I (1) o Biology I (1) o Social Studies (1) o Physical Education (.5) o Health (.5)	o OST 105 – Introduction to Information Systems (3) o OST 110 – Document Formatting and Word Processing (3)	KCTCS Data Entry Operator Certificate
10	o English II (1) o Geometry (1) o Science Course (1) o Social Studies (1) o Visual and Performing Arts (1)	o OST 160 – Records and Database Management (3) o ACC 201 – Financial Accounting (3)	
11	o COM 181 – Oral Communications (3) **OR** COM 252 – Intro to Interpersonal Communications (3) o Mathematics (1) o Science Course (1) o HIS 108 – History of the US Through 1865 (3) **OR** HIS 109 – History of the US Since 1865 (3)	o OST 215 – Office Procedures (3) o OST 235 – Business Communications Technology (3)	
12	o ENG 101 – Writing I (3) o MAT 150 – College Algebra (3) o BIO 112/113 – Intro to Biology & Lab (4) o ECO 201 – Principles of Economics (3)	o OST 210 – Advanced Word Processing Application (3) o BAS 120 – Personal Finance (3)	KCTCS Financial Assistant Trainee, Financial Assistant Clerk, & Receptionist Certificates High School Diploma
13		Fall: o OST 240 – Software Integration (3) o OST 225 – Introduction to Desktop Publishing (3) o BAS 160 – Introduction to Business (3) o OST 220 – Administrative Office Simulation (3) Spring: o OST 275 – Office Management (3) o OST 295 – Administrative Office Technology Internship (3)	KCTCS Administrative Office Technology AAS

Grade	General Education	Technical Core	Diploma, Certifications(s), Certificate(s), Degree(s)
9	o English I (1) o Algebra I (1) o Biology I (1) o Social Studies (1) o Physical Education (.5) o Health (.5)		
10	o English II (1) o Geometry (1) o Science Course (1) o Social Studies (1) o Visual and Performing Arts (1)		
11	o COM 181 – Oral Communications (3) **OR** COM 252 – Intro to Interpersonal Communications (3) o Mathematics (1) o Science Course (1) o HIS 108 – History of the US Through 1865 (3) **OR** HIS 109 – History of the US Since 1865 (3)	o OST 105 – Introduction to Information Systems (3) o OST 110 – Document Formatting and Word Processing (3)	KCTCS Data Entry Operator Certificate
12	o ENG 101 – Writing I (3) o MAT 150– College Algebra (3) o BIO 112/113 – Intro to Biology & Lab (4) o ECO 201 – Principles of Economics (3)	o OST 160 – Records and Database Management (3) o ACC 201 – Financial Accounting (3) o o	High School Diploma
13		Fall: o OST 215 – Office Procedures (3) o OST 235 – Business Communications Technology (3) o OST 210 –Advanced Word Processing Application (3) o BAS 120 – Personal Finance (3) o OST 240 – Software Integration (3) Spring: o OST 225 – Introduction to Desktop Publishing (3) o BAS 160 – Introduction to Business (3) o OST 220 – Administrative Office Simulation (3) o OST 275 – Office Management (3) o OST 295 – Administrative Office Technology Internship (3)	KCTCS Financial Assistant Trainee, Financial Assistant Clerk, & Receptionist Certificates High School Diploma KCTCS Administrative Office Technology AAS

Note: these are model pathways. Each high school will have to develop its pathway based on the college's dual credit course offerings.

ADMINISTRATIVE OFFICE TECHNOLOGY – FINANCIAL ASSISTANT

Secondary-Postsecondary Pathway
Effective date: 2020-2021

Postsecondary Institution: KCTCS (Institutions TBD)

Secondary School:

Pathway: Administrative Office Technology - Financial Assistant Track

College Credit: Hours in HS out of 64 credits

Grade	General Education	Technical Core	Diploma, Certification(s), Certificate(s), Degree(s)
9	o English I (1) o Algebra I (1) o Biology I (1) o Social Studies (1) o Physical Education (.5) o Health (.5)	o OST 105 – Introduction to Information Systems (3) o OST 110 – Document Formatting and Word Processing (3)	KCTCS Data Entry Operator Certificate
10	o English II (1) o Geometry (1) o Science Course (1) o Social Studies (1) o Visual and Performing Arts (1)	o OST 160 – Records and Database Management (3) o ACC 201 – Financial Accounting (3)	
11	o COM 181 – Oral Communications (3) **OR** COM 252 – Intro to Interpersonal Communications (3) o Mathematics (1) o Science Course (1) o HIS 108 – History of the US Through 1865 (3) **OR** HIS 109 – History of the US Since 1865 (3)	o OST – 215 Office Procedures (3) o OST – 235 Business Communications Technology (3)	
12	o ENG 101 – Writing I (3) o MAT 150 – College Algebra (3) o BIO 112/113 – Intro to Biology & Lab (4) o ECO 201 – Principles of Microeconomics (3)	o OST 210 – Advanced Word Processing (3) o BAS 120 – Personal Finance (3)	KCTCS Financial Assistant Trainee, Financial Assistant Clerk, & Receptionist Certificates High School Diploma
13		Fall: o ACC 202 – Managerial Accounting (3) o ACT 279 – Computerized Accounting Systems (3) o BAS 160 – Introduction to Business (3) o OST 240 – Software Integration (3) Spring: o OST 275 – Office Management (3) o OST 295 – Administrative Office Technology Internship (3)	KCTCS Administrative Office Technology AAS

Grade	General Education	Technical Core	Diploma, Certification(s), Certificate(s), Degree(s)
9	o English I (1) o Algebra I (1) o Biology I (1) o Social Studies (1) o Physical Education (.5) o Health (.5)		
10	o English II (1) o Geometry (1) o Science Course (1) o Social Studies (1) o Visual and Performing Arts (1)		
11	o COM 181 – Oral Communications (3) **OR** COM 252 – Intro to Interpersonal Communications (3) o Mathematics (1) o Science Course (1) o HIS 108 – History of the US Through 1865 (3) **OR** HIS 109 – History of the US Since 1865 (3)	o OST 105 – Introduction to Information Systems (3) o OST 110 – Document Formatting and Word Processing (3)	KCTCS Data Entry Operator Certificate
12	o ENG 101 – Writing I (3) o MAT 150 – College Algebra (3) o BIO 112/113 – Intro to Biology & Lab (4) o ECO 201 – Principles of Microeconomics (3)	o OST 160 – Records and Database Management (3) o ACC 201 – Financial Accounting (3)	
13		Fall: o OST 215 – Office Procedures (3) o OST 235 – Business Communications Technology (3) o OST 210 – Advanced Word Processing (3) o OST 240 – Software Integration (3) o ACC 202 – Managerial Accounting (3) Spring: o ACT 279 – Computerized Accounting Systems (3) o BAS 160 – Introduction to Business (3) o OST 275 – Office Management (3) o OST 295 – Administrative Office Technology Internship (3)	KCTCS Administrative Office Technology AAS

Note: these are model pathways. Each high school will have to develop its pathway based on the college's dual credit course offerings.

AGRICULTURE
Secondary-Postsecondary Pathway
Effective date: 2019-2020

Postsecondary Institution: KCTCS (Institutions TBD)
Secondary School:

Pathway: Agriculture -Multiple Tracks
College Credit: 32-44 hours in HS out of 60-61 credits

Grade	General Education	Technical Core	Diploma, Certification(s), Certificate(s), Degree(s)
9	o English I (1) o Algebra I (1) o Biology I (1) o Social Studies (1) o Physical Education (.5) o Health (.5)	o AGR 240 – Animal Science (3) o CIT 105 – Introduction to Computers (3)	
10	o English II (1) o Geometry (1) o Science Course (1) o Social Studies (1) o Visual and Performing Arts (1)	o AGR 250 – Introduction to Plants/Crop Rotation (3) o AGR 140 – Issues in Agriculture (3)	
11	o COM 181 – Oral Communications (3) o Mathematics (1) o BIO 112/113 – Intro to Biology & Lab (4) **OR** o BIO 114/115 – Biology & Lab (4) o ART 100 – Intro to Art (3) **OR** HIS 101 – World Civilization (3) **OR** HIS 108 - History of the US Through 1865 (3) **OR** HIS 109 -History of the US Since 1865 (3) **OR** MUS 100 – Intro to Music (3) **OR** REL 101 – Intro to Religious Studies (3) **OR** REL 130 – Intro to Comparative Religion (3)	o Track 1 course (3) o Track 2 course (3)	
12	o ENG 101 – Writing I (3) o MAT 110– Applied Mathematics (3) or higher o CHE 140/145 -Introductory General Chemistry & Lab (4) o Social Studies (1)	o Track 3 course (3) o Track 4 course (3)	High School Diploma
13	Fall: o AGR 101 – The Economics of Food & Agriculture (3) o ENG 102 – Writing II (3)	Fall: o Track 5 course (3) o AGR 125 – Intro to Fertilizer & Soils (3) Spring: o AGR 130 – Field Application in Agriculture (2) o AGR 230 – Career Development in Agriculture (3)	KCTCS Track-Specific Certificate KCTCS Track Specific Diploma & AAS

Grade	General Education	Technical Core	Diploma, Certification(s), Certificate(s), Degree(s)
9	o English I (1) o Algebra I (1) o Biology I (1) o Social Studies (1) o Physical Education (.5) o Health (.5)		
10	o English II (1) o Geometry (1) o Science Course (1) o Social Studies (1) o Visual and Performing Arts (1)		
11	o COM 181 – Oral Communications (3) o Mathematics (1) o BIO 112/113 – Intro to Biology & Lab (4) **OR** BIO 114/115 – Biology & Lab (4) o ART 100 – Intro to Art (3) **OR** HIS 101 – World Civilization (3) **OR** HIS 108 – History of the US Through 1865 (3) **OR** HIS 109 – History of the US Since 1865 (3) **OR** MUS 100 – Intro to Music (3) **OR** REL 101 – Intro to Religious Studies (3) **OR** REL 130 – Intro to Comparative Religion (3)	o AGR 240 – Animal Science (3) o CIT 105 – Introduction to Computers (3)	
12	o ENG 101 – Writing I (3) o MAT 110 – Applied Mathematics (3) or higher o CHE 140/145 -Introductory General Chemistry & Lab (4) o Social Studies (1)	o AGR 250 – Introduction to Plants/Crop Rotation (3) o AGR 140 – Issues in Agriculture (3)	High School Diploma
13	Fall: o AGR 101 – The Economics of Food & Agriculture (3) Spring: o ENG 102 – Writing II (3)	Fall: o Track 1 course (3) o Track 2 course (3) o Track 3 course (3) o Track 4 course (3) Spring: o Track 5 course (3) o AGR 125 – Intro to Fertilizer & Soils (3) o AGR 130 – Field Application in Agriculture (2) o AGR 230 – Career Development in Agriculture (3)	KCTCS Track-Specific Certificate KCTCS Track Specific Diploma & AAS

Note: these are model pathways. Each high school will have to develop its pathway based on the college's dual credit course offerings.

ARCHITECTURE
Secondary-Postsecondary Pathway
Effective date: 2020-2021

Postsecondary Institution: KCTCS (Institutions TBD) **Pathway:** Architecture

Secondary School: **College Credit:** 31-43 Hours in HS out of 65-68

Grade	General Education	Technical Core	Diploma, Certification(s), Certificate(s), Degree(s)
9	o English I (1) o Algebra I (1) o Biology I (1) o Social Studies (1) o Physical Education (.5) o Health (.5)	o ACH 195 – Computer Aided Drafting I (3) o ACH 100 – Construction Documents I (3)	
10	o English II (1) o Geometry (1) o Science Course (1) o Social Studies (1) o Visual and Performing Arts (1)	o ACH 160 – Building Materials & Construction I (3) o ACH 150 – Construction Documents II (3)	
11	o COM 181 – Oral Communications (3) **OR** COM 252 – Intro to Interpersonal Communications (3) o Mathematics (1) o Science Course (1) o HIS 108 – History of the US Through 1865 (3) **OR** HIS 109 – History of the US Since 1865 (3)	o ACH 120 – Theory and History of Architecture I (3) o ACH 161 – Building Materials & Construction II (3)	
12	o ENG 101 – Writing I (3) o MAT 150 – College Algebra (3) o BIO 112/113 – Intro to Biology & Lab (4) o PSY 110 – General Psychology (3)	o ACH 175 – Introduction to Systems (3) **OR** ACH 110 – Survey of the Architectural Profession (1) o ACH 170 – Theory and History of Architecture II (3)	High School Diploma
13		Fall: o ACH 225 – Structures (3) o ACH XXX – Technical Course 1 (1-3) o ACH XXX – Technical Course 2 (1-3) Spring: o ACH 200 – Construction Documents III (3) o ACH 250 – Construction Documents IV (3) o ACH 260 – Office Practices (3) o ACH 275 – Mechanical and Electrical Systems (3) o ACH XXX – Technical Course 3 (1-3) o ACH XXX – Technical Course 4 (1-3)	KCTCS Architectural Technology AAS

Grade	General Education	Technical Core	Diploma, Certification(s), Certificate(s), Degree(s)
9	o English I (1) o Algebra I (1) o Biology I (1) o Social Studies (1) o Physical Education (.5) o Health (.5)		
10	o English II (1) o Geometry (1) o Science Course (1) o Social Studies (1) o Visual and Performing Arts (1)		
11	o COM 181 – Oral Communications (3) **OR** COM 252 – Intro to Interpersonal Communications (3) o Mathematics (1) o Science Course (1) o HIS 108 – History of the US Through 1865 (3) **OR** HIS 109 – History of the US Since 1865 (3)	o ACH 195 – Computer Aided Drafting I (3) o ACH 100 – Construction Documents I (3)	
12	o ENG 101 – Writing I (3) o MAT 150 – College Algebra (3) o BIO 112/113 – Intro to Biology & Lab (4) o PSY 110 – General Psychology (3)	o ACH 160 – Building Materials & Construction I (3) o ACH 150 – Construction Documents II (3)	High School Diploma
13		Fall: o ACH 120 – Theory and History of Architecture I (3) o ACH 170 – Theory and History of Architecture II (3) o ACH 161 – Building Materials & Construction II (3) o ACH 110 – Survey of the Architectural Profession (1) Spring: o ACH 175 – Introduction to Systems (3) o ACH 200 – Construction Documents III (3) o ACH 225 – Structures (3) o ACH XXX – Technical Course 1 (1-3) o ACH XXX – Technical Course 2 (1-3)	
14		Fall: o ACH 250 – Construction Documents IV (3) o ACH 260 – Office Practices (3) o ACH 275 – Mechanical and Electrical Systems (3) o ACH XXX – Technical Course 3 (1-3) o ACH XXX – Technical Course 4 (1-3)	

Note: these are model pathways. Each high school will have to develop its pathway based on the college's dual credit course offerings.

AUTOMOTIVE TECHNICIAN
Secondary-Postsecondary Pathway
Effective date: 2019-2020

Postsecondary Institution: KCTCS (Institutions TBD)

Pathway: Automotive Technician AAS

Secondary School:

College Credit: 36-55 hours in HS out of 61-72 credits

Courses have to be completed at the college by the college instructor to earn dual credit due to ASE accreditation. Students taking these courses in high school will not be eligible for dual credit.

Grade	General Education	Technical Core	Diploma, Certification(s), Certificate(s), Degree(s)
9	o English I (1) o Algebra I (1) o Biology I (1) o Social Studies (1) o Physical Education (.5) o Health (.5)	o ADX 120/121 – Basic Automotive Electricity & Lab (5) o ADX 260/261 – Electrical Systems & Lab (5)	KCTCS Automotive Electrician Certificate
10	o English II (1) o Geometry (1) o Science Course (1) o Social Studies (1) o Visual and Performing Arts (1)	o ADX 150/151 – Engine Repair & Lab (5) o ADX 170/171 – Climate Control & Lab (4)	KCTCS Engine Repair Certificate KCTCS Automotive A/C Mechanic Certificate
11	o English (1) o MAT 105 – Business Mathematics (3) or higher o Science Course (1) o HIS 108 – History of the US Through 1865 (3) **OR** HIS 109 – History of the US Since 1865 (3)	o AUT 110/111 – Brake Systems & Lab (5) o AUT 160/161 – Suspension & Steering & Lab (5)	KCTCS Brake Repairer Certificate KCTCS Front End Mechanic Certificate
12	o ENG 101 – Writing I (3) o Mathematics (1) o BIO 112/113 – Intro to Biology & Lab (4) o POL 101 – American Government (3) **OR** PSY 110 – General Psychology (3)	o AUT 130/131 – Manual Drive Train & Axles & Lab (5) o AUT 180/181 – Automatic Transmission/Transaxle & Lab (5)	KCTCS Manual Transmission/Drive Train Technician Certificate KCTCS Automotive Transmission/ Drive Technician Certificate High School Diploma
13		Fall: o Digital Literacy (0-3) o AUT 140/141 – Basic Fuel & Ignition Systems & Lab (5) o AUT 142/143 – Emission Systems & Lab (5) o AUT 240/241 – Computer Control Systems & Diagnosis (5) o Work Experience Component (1)	KCTCS Automotive Technician Diploma and AAS

Grade	General Education	Technical Core	Diploma, Certification(s), Certificate(s), Degree(s)
9	o English I (1) o Algebra I (1) o Biology I (1) o Social Studies (1) o Physical Education (.5) o Health (.5)		
10	o English II (1) o Geometry (1) o Science Course (1) o Social Studies (1) o Visual and Performing Arts (1)		
11	o English (1) o MAT 105 – Business Mathematics (3) or higher o Science Course (1) o HIS 108 – History of the US Through 1865 (3) **OR** HIS 109 – History of the US Since 1865 (3)	o ADX 120/121 – Basic Automotive Electricity & Lab (5) o ADX 260/261 – Electrical Systems & Lab (5)	KCTCS Automotive Electrician Certificate
12	o ENG 101 – Writing I (3) o Mathematics (1) o BIO 112/113 – Intro to Biology & Lab (4) o POL 101 – American Government (3) **OR** PSY 110 – General Psychology (3)	o ADX 150/151 – Engine Repair & Lab (5) o ADX 170/171 – Climate Control & Lab (4)	KCTCS Engine Repair Certificate KCTCS Automotive A/C Mechanic Certificate High School Diploma
13		Fall: o AUT 110/111 – Brake Systems & Lab (5) o AUT 160/161 – Suspension & Steering & Lab (5) o AUT 130/131 – Manual Drive Train & Axles & Lab (5) o AUT 180/181 – Automatic Transmission/Transaxle & Lab (5) Spring: o Digital Literacy (0-3) o AUT 140/141 – Basic Fuel & Ignition Systems & Lab (5) o AUT 142/143 – Emission Systems & Lab (5) o AUT 240/241 – Computer Control Systems & Diagnosis (5) o Work Experience Component (1)	KCTCS Brake Repairer Certificate KCTCS Front End Mechanic Certificate KCTCS Manual Transmission/Drive Train Technician Certificate KCTCS Automotive Transmission/ Drive Technician Certificate KCTCS Automotive Technician Diploma and AAS

Note: these are model pathways. Each high school will have to develop its pathway based on the college's dual credit course offerings.

AVIATION MAINTENANCE TECHNOLOGY
Secondary-Postsecondary Pathway
Effective date: 2024-2025

Postsecondary Institution: KCTCS (Institutions TBD) **Pathway:** Aviation Maintenance Technology

Secondary School: **College Credit:** 17-29 Hours in HS out of 70

Note: Students must be 16 years or older to be able to enroll in ATE Courses

Grade	General Education	Technical Core	Diploma, Certification(s), Certificate(s), Degree(s)
9	o English I (1) o Algebra I (1) o Biology I (1) o Social Studies (1) o Physical Education (.5) o Health (.5)	o CIT 105 – Introduction to Computers (3) **OR** OST 105 – Introduction to Information Systems (3)	
10	o English II (1) o Geometry (1) o Science Course (1) o Social Studies (1) o Visual and Performing Arts (1)	o ATE 101 – Pre-Aviation Maintenance Technology (3)	
11	o English III (1) o Mathematics (1) o Science Course (1) o HIS 108 – History of the US Through 1865 (3) **OR** HIS 109 – History of the US Since 1865 (3)	o ATE 103 – Introduction to Aircraft Maintenance I (3) o ATE 107 – Introduction to Aircraft Maintenance III (3) o ATE 105 – Introduction to Aircraft Maintenance II (3) o ATE 109 – Introduction to Aircraft Maintenance IV (3)	
12	o ENG 101 – Writing I (3) o MAT 105 – Business Mathematics (3) or higher o BIO 112/113 – Intro to Biology & Lab (4) o PSY 110 – General Psychology (3)	o ATE 201 – Aircraft Powerplant and Related Systems I (3) o ATE 203 – Aircraft Powerplant and Related Systems II (3) o ATE 205 – Aircraft Powerplant and Related Systems III (3) o ATE 207 – Aircraft Powerplant and Related Systems IV (3)	High School Diploma
13		o ATE 211 – Aircraft Structures I (3) o ATE 213 – Aircraft Structures II (3) o ATE 215 – Aircraft Structures III (3) o ATE 217 – Aircraft Structures IV (3)	
14		o ATE 221 – Aircraft Systems I (3) o ATE 223 – Aircraft Systems II (3) o ATE 225 – Aircraft Systems III (3) o ATE 227 – Aircraft Systems IV (3) o ATE 299 – SpecialTopics as needed (1-3)	KCTCS Aviation Maintenance Technology AAS

Note: these are model pathways. Each high school will have to develop its pathway based on the college's dual credit course offerings.

BUSINESS ADMINISTRATION SYSTEMS

Secondary-Postsecondary Pathway
Effective date: 2019-2020

Postsecondary Institution: KCTCS (Institutions TBD)
Secondary School:

Pathway: Business Administration Systems
College Credit: 31-43 Hours in HS

Grade	General Education	Technical Core	Diploma, Certification(s), Certificate(s), Degree(s)
9	o English I (1) o Algebra I (1) o Biology I (1) o Social Studies (1) o Physical Education (.5) o Health (.5)	o CIT 105 – Introduction to Computers (3) **OR** OST 105 – Introduction to Information Systems (3) o BAS 160 – Introduction to Business (3)	
10	o English II (1) o Geometry (1) o Science Course (1) o Social Studies (1) o Visual and Performing Arts (1)	o ACC 201 – Financial Accounting (3) o BAS 282 – Principles of Marketing (3)	
11	o COM 181 – Oral Communications (3) **OR** COM 252 – Intro to Interpersonal Communications (3) o Mathematics (1) o Science Course (1) o HIS 108 – History of the US Through 1865 (3) **OR** HIS 109 – History of the US Since 1865 (3)	o BAS 283 – Principles of Management (3) o Track 1 course (3)	
12	o ENG 101 – Writing I (3) o MAT 105 – Business Mathematics (3) or higher o BIO 112/113 – Intro to Biology & Lab (4) o ECO 101 – Contemporary Economic Issues (3)	o Track 2 course (3) o Track 3 course (3)	KCTCS General Business Certificate High School Diploma
13	o ENG 102 (3)	Fall: o ACC 202 – Managerial Accounting (3) o BAS 260 – Professional Development & Protocol (2) o BAS 270 – Business Employability Seminar (1) o BAS 267 – Introduction to Business Law (3) o Track 4 course (3) Spring: o Track 5 course (3) o Track 6 course (3)	(Various KCTCS Certificates depending on Track) KCTCS BAS Diploma & AAS Track X

Grade	General Education	Technical Core	Diploma, Certification(s), Certificate(s), Degree(s)
9	o English I (1) o Algebra I (1) o Biology I (1) o Social Studies (1) o Physical Education (.5) o Health (.5)		
10	o English II (1) o Geometry (1) o Science Course (1) o Social Studies (1) o Visual and Performing Arts (1)		
11	o COM 181 – Oral Communications (3) **OR** COM 252 – Intro to Interpersonal Communications (3) o Mathematics (1) o Science Course (1) o HIS 108 – History of the US Through 1865 (3) **OR** HIS 109 – History of the US Since 1865 (3)	o CIT 105 – Introduction to Computers (3) **OR** OST 105 – Introduction to Information Systems (3) o BAS 160 – Introduction to Business (3)	
12	o ENG 101 – Writing I (3) o MAT 105 – Business Mathematics (3) or higher o BIO 112/113 – Intro to Biology & Lab (4) o ECO 101 – Contemporary Economic Issues (3)	o ACC 201 – Financial Accounting (3) o BAS 282 – Principles of Marketing (3)	KCTCS General Business Certificate High School Diploma
13	o ENG 102 (3)	Fall: o BAS 283 – Principles of Management (3) o ACC 202 – Managerial Accounting (3) o BAS 260 – Professional Development & Protocol (2) o BAS 270 – Business Employability Seminar (1) o BAS 267 – Introduction to Business Law (3) Spring: o ACC 202 – Managerial Accounting (3) o Track 1 course (3) o Track 2 course (3) o Track 3 course (3) o Track 4 course (3)	
14		Fall: o Track 5 course (3) o Track 6 course (3)	KCTCS BAS Diploma & AAS Track X

Note: these are model pathways. Each high school will have to develop its pathway based on the college's dual credit course offerings.

COMPUTERIZED MANUFACTURING AND MACHINING
Secondary-Postsecondary Pathway
Effective date: 2019-2020

Postsecondary Institution: KCTCS (Institutions TBD)
Secondary School:

Pathway: Computerized Manufacturing & Machining
College Credit: 26-38 Hours in HS out of 64-67

Grade	Academic Core	Technical Core	Diploma, Certifications(s), Certificate(s), Degree(s)
9	o English I (1) o Algebra I (1) o Biology I (1) o Social Studies (1) o Physical Education (.5) o Health (.5)	o CMM 110 – Fundamentals of Machine Tools A (3) o CMM 112 – Fundamentals of Machine Tools B (3) **OR** o CMM 114 – Fundamentals of Machine Tools (6)	
10	o English II (1) o Geometry (1) o Science Course (1) o Social Studies (1) o Visual and Performing Arts (1)	o CMM 130 – Manual Programming (3) o CMM 132 – CAD/CAM/CNC (3) **OR** o CMM 134 – Manual Programming CAD/CAM/CNC (6)	KCTCS Exploratory Machining I Certificate
11	o English (1) o MAT 116 – Technical Mathematics (3) or higher o Science Course (1) o HIS 108 – History of the US Through 1865 (3) **OR** HIS 109 – History of the US Since 1865 (3)	o CMM 120 – Applied Machining I (3) o CMM 122 – Applied Machining II (3) **OR** o CMM 124 – Applied Machining (6)	
12	o ENG 101 – Writing I (3) o Mathematics (1) o BIO 112/113 – Intro to Biology & Lab (4) o POL 101 – American Government (3) **OR** PSY 110 – General Psychology (3)	o BRX 110 – Basic Blueprint Reading for Machinist (2) o BRX 210 – Mechanical Blueprint Reading for Machinist (2)	KCTCS Machine Tool Operator I Certificate High School Diploma

13		Fall:
		o Digital Literacy (0-3)
		o CMM 118 – Metrology/Control Charts (2)
		
		o CMM 230 – Conversational Programming (6) **OR**
		  CMM 234 – CNC Machines & Coding Practices (6)
		o Co-op or Practicum (1)
		Spring:
		o CMM 214 – Industrial Machining (6)
		o CMM 224 – CNC Machines & Coding Practices (6)
		o CMM 244 – Advanced Programming/Setup Practices (6) **OR**
		  CMM 240 – Introduction to 3-D Printing (6)
			KCTCS Machine Tool Operator II Certificate
			
			KCTCS CNC Operator Certificate
			KCTCS Machinist Diploma
			
			KCTCS CNC Machinist Diploma
			KCTCS Computerized Manufacturing & Machining AAS

Grade	Academic Core	Technical Core	Diploma, Certifications(s), Certificate(s), Degree(s)
9	o English I (1) o Algebra I (1) o Biology I (1) o Social Studies (1) o Physical Education (.5) o Health (.5)		
10	o English II (1) o Geometry (1) o Science Course (1) o Social Studies (1) o Visual and Performing Arts (1)		
11	o English (1) o MAT 116 – Technical Mathematics (3) or higher o Science Course (1) o HIS 108 – History of the US Through 1865 (3) **OR** HIS 109 – History of the US Since 1865 (3)	o CMM 110 – Fundamentals of Machine Tools A (3) o CMM 112 – Fundamentals of Machine Tools B (3) **OR** o CMM 114 – Fundamentals of Machine Tools (6)	
12	o ENG 101 – Writing I (3) o Mathematics (1) o BIO 112/113 – Intro to Biology & Lab (4) o POL 101 – American Government (3) **OR** PSY 110 – General Psychology (3)	o CMM 130 – Manual Programming (3) o CMM 132 – CAD/CAM/CNC (3) **OR** CMM 134 – Manual Programming CAD/CAM/CNC (6)	KCTCS Exploratory Machining I Certificate High School Diploma
13		o CMM 120 – Applied Machining I (3) o CMM 122 – Applied Machining II (3) **OR** CMM 124 – Applied Machining (6) o BRX 110 – Basic Blueprint Reading for Machinist (2) o BRX 210 – Mechanical Blueprint Reading for Machinist (2) o Digital Literacy (0-3) o CMM 118 – Metrology/Control Charts (2)	KCTCS Machine Tool Operator I Certificate KCTCS Machine Tool Operator II Certificate
14		o CMM 230 – Conversational Programming (6) **OR** CMM 234 – CNC Machines & Coding Practices (6) o CMM 214 – Industrial Machining (6) o CMM 224 – CNC Machines & Coding Practices (6) o CMM 244 – Advanced Programming/Setup Practices (6) **OR** CMM 240 – Introduction to 3-D Printing (6) o Co-op or Practicum (1)	KCTCS CNC Operator Certificate KCTCS Machinist Diploma KCTCS CNC Machinist Diploma KCTCS Computerized Manufacturing & Machining AAS

Note: these are model pathways. Each high school will have to develop its pathway based on the college's dual credit course offerings.

CONSTRUCTION TECHNOLOGY
Secondary-Postsecondary Pathway
Effective date: 2019-2020

Postsecondary Institution: KCTCS (Institutions TBD) **Pathway:** Construction Technology

Secondary School: **College Credit:** 39-54 Hours in HS out of 60-65 credits

Grade	Academic Core	Technical Core	Diploma, Certifications(s), Certificate(s), Degree(s)
9	o English I (1) o Algebra I (1) o Biology I (1) o Social Studies (1) o Physical Education (.5) o Health (.5)	o ISX 100 – Industrial Safety (3) o BRX 220 – Blueprint Reading for Construction (3)	
10	o English II (1) o Geometry (1) o Science Course (1) o Social Studies (1) o Visual and Performing Arts (1)	o CAR 126/127 – Intro to Construction & Lab (4) o CAR 140/141 – Surveying & Foundations & Lab (5)	KCTCS Basic Carpenter Certificate KCTCS Residential Site Layout Assistant Certificate
11	o COM 181 – Oral Communications (3) **OR** COM 252 – Intro to Interpersonal Communications (3) o MAT 105 – Business Mathematics (3) or higher o Science Course (1) o HIS 108 – History of the US Through 1865 (3) **OR** HIS 109 – History of the US Since 1865 (3)	o CAR 150/151 – Construction Formwork & Lab (5) o CAR 190/191 – Light Frame Construction I & Lab (5)	KCTCS Constructions Forms Helper Certificate KCTCS Carpenter Helper Certificate
12	o ENG 101 – Writing I (3) o Mathematics (1) o BIO 112/113 – Intro to Biology & Lab (4) o POL 101 – American Government (3) **OR** PSY 110 – General Psychology (3)	o CAR 196/197 – Light Frame Construction II & Lab (5) o CAR 200/201 – Light Frame Construction III & Lab (5)	KCTCS Residential Roofer Certificate & Rough Carpenter Certificate High School Diploma
13		Fall: o CAR 240/241 – Light Frame Construction IV & Lab (5) o Digital Literacy (0-3) o CAR 298 – Practicum in Construction (2) **OR** CAR 299 – Co-op in Construction (2-4)	KCTCS Residential Carpenter Certificate KCTCS Construction Carpenter Diploma & AAS

Grade	Academic Core	Technical Core	Diploma, Certifications(s), Certificate(s), Degree(s)
9	o English I (1) o Algebra I (1) o Biology I (1) o Social Studies (1) o Physical Education (.5) o Health (.5)		
10	o English II (1) o Geometry (1) o Science Course (1) o Social Studies (1) o Visual and Performing Arts (1)		
11	o COM 181 – Oral Communications (3) **OR** COM 252 – Intro to Interpersonal Communications (3) o Mathematics (1) o Science Course (1) o HIS 108 – History of the US Through 1865 (3) **OR** HIS 109 – History of the US Since 1865 (3)	o ISX – Industrial Safety (3) o BRX 220 – Blueprint Reading for Construction (3)	
12	o ENG 101 – Writing I (3) o MAT 105 – Business Mathematics (3) or higher o BIO 112/113 – Intro to Biology & Lab (4) o POL 101 – American Government (3) **OR** PSY 110 – General Psychology (3)	o CAR 126/127 – Intro to Construction & Lab (4) o CAR 140/141 – Surveying & Foundations & Lab (5)	KCTCS Basic Carpenter Certificate KCTCS Residential Site Layout Assistant Certificate High School Diploma
13		Fall: o CAR 150-151 – Construction Formwork & Lab (5) o CAR 190/191 – Light Frame Construction I & Lab (5) o CAR 196/197 – Light Frame Construction II & Lab (5) Spring: o CAR 200/201 – Light Frame Construction III & Lab (5) o CAR 240/241 – Light Frame Construction IV & Lab (5) o Digital Literacy (0-3) o CAR 298 – Practicum in Construction (2) **OR** CAR 299 – Co-op in Construction (2-4)	KCTCS Constructions Forms Helper Certificate KCTCS Carpenter Helper Certificate KCTCS Residential Roofer Certificate & Rough Carpenter Certificate KCTCS Residential Carpenter Certificate KCTCS Construction Carpenter Diploma & AAS

Note: these are model pathways. Each high school will have to develop its pathway based on the college's dual credit course offerings.

CRIMINAL JUSTICE
Secondary-Postsecondary Pathway
Effective date: 2019-2020

Postsecondary Institution: KCTCS (Institutions TBD)
Secondary School:

Pathway: Criminal Justice - Corrections Track
College Credit: 34-46 Hours in HS out of 61-64 credits

Grade	General Education	Technical Core	Diploma, Certifications(s), Certificate(s), Degree(s)
9	o English I (1) o Algebra I (1) o Biology I (1) o Social Studies (1) o Physical Education (.5) o Health (.5)	o CRJ 100 – Introduction to Criminal Justice (3) o CRJ 202 – Issues & Ethics in Criminal Justice (3)	
10	o English II (1) o Geometry (1) o Science Course (1) o Social Studies (1) o Visual and Performing Arts (1)	o CRJ 204 – Criminal Investigations (3) o CRJ 216 – Criminal Law (3)	
11	o COM 181 – Oral Communications (3) **OR** COM 252 – Intro to Interpersonal Communications (3) o Mathematics (1) o PSY 110 – General Psychology (3) o HIS 108 – History of the US Through 1865 (3) **OR** HIS 109 – History of the US Since 1865 (3)	o CRJ 217 – Criminal Procedures (3) o CRJ 230 – Criminal Justice Courtroom Procedures (3)	KCTCS Criminal Justice Core Certificate
12	o ENG 101 – Writing I (3) o MAT 105 – Business Mathematics (3) or higher o BIO 112/113 – Intro to Biology & Lab (4) o POL 101 – American Government (3)	o CRJ 208 – Delinquency & the Juvenile Justice System (3) **OR** CRJ 215 – Introduction to Law Enforcement (3) o CRJ 277 – Introduction to Criminology (3) **OR** CRJ 102 – Introduction to Corrections (3)	High School Diploma
13	Fall: o ENG 102 – Writing II (3) o SOC 101 – Introduction to Sociology (3) Spring: o XXXXXX – Elective (Gen Ed or Technical) (3) o XXXXXX – Elective (Gen Ed or Technical) (3)	Fall: o CRJ 203 – Community Corrections: Probation & Parole (3) o CRJ 222 – Prison & Jail Administration (3) o CRJ 231 – Legal Aspects of Corrections (3) Spring: o Digital Literacy (0-3) o CRJ 295 – Criminal Justice Capstone (1)	KCTCS Corrections Certificate KCTCS Corrections AAS

Grade	General Education	Technical Core	Diploma, Certifications(s), Certificate(s), Degree(s)
9	o English I (1) o Algebra I (1) o Biology I (1) o Social Studies (1) o Physical Education (.5) o Health (.5)		
10	o English II (1) o Geometry (1) o Science Course (1) o Social Studies (1) o Visual and Performing Arts (1)		
11	o COM 181 – Oral Communications (3) **OR** COM 252 – Intro to Interpersonal Communications (3) o Mathematics (1) o PSY 110 – General Psychology (3) o HIS 108 – History of the US Through 1865 (3) **OR** HIS 109 – History of the US Since 1865 (3)	o CRJ 100 – Introduction to Criminal Justice (3) o CRJ 202 – Issues & Ethics in Criminal Justice (3)	
12	o ENG 101 – Writing I (3) o MAT 105 – Business Mathematics (3) or higher o BIO 112/113 – Intro to Biology & Lab (4) o POL 101 – American Government (3)	o CRJ 204 – Criminal Investigations (3) o CRJ 216 – Criminal Law (3)	High School Diploma
13	Fall: o ENG 102 – Writing II (3) o SOC 101 – Introduction to Sociology (3) Spring: o XXXXXX – Elective (Gen Ed or Technical) (3) o XXXXXX – Elective (Gen Ed or Technical) (3)	Fall: o CRJ 217 – Criminal Procedures (3) o CRJ 230 – Criminal Justice Courtroom Procedures (3) o CRJ 208 – Delinquency & the Juvenile Justice System (3) **OR** CRJ 215 – Introduction to Law Enforcement (3) Spring: o CRJ 277 – Introduction to Criminology (3) **OR** CRJ 102 – Introduction to Corrections (3) o CRJ 203 – Community Corrections: Probation & Parole (3) o CRJ 222 – Prison & Jail Administration (3)	CTCS Criminal Justice Core Certificate
14		Fall: o CRJ 231 – Legal Aspects of Corrections (3) o Digital Literacy (0-3) o CRJ 295 – Criminal Justice Capstone (1)	KCTCS Corrections Certificate KCTCS Corrections AAS

Note: these are model pathways. Each high school will have to develop its pathway based on the college's dual credit course offerings.

COMPUTER INFORMATION TECHNOLOGY

Secondary-Postsecondary Pathway
Effective date: 2019-2020

Postsecondary Institution: KCTCS (Institutions TBD)
Secondary School:

Pathway: Computer Information Technology - Multiple Tracks
College Credit: 28-42 hours in HS out of 60-64 credits

Grade	General Education	Technical Core	Diploma, Certification(s), Certificate(s), Degree(s)
9	o English I (1) o Algebra I (1) o Biology I (1) o Social Studies (1) o Physical Education (.5) o Health (.5)	o CIT 105 – Introduction to Computers (3) o CIT 111 – Computer Hardware & Software (4)	KCTCS A+ Prep Certificate
10	o English II (1) o Geometry (1) o Science Course (1) o Social Studies (1) o Visual and Performing Arts (1)	o CIT 170 – Database Design Fundamentals (3) o CIT 160 – Introduction to Networking Concepts (4) **OR** CIT 161 – Introduction to Networks (4)*	KCTCS Computer Tech Basic Certificate
11	o English III (1) o Algebra II (1) o Science Course (1) o HIS 108 – History of the US Through 1865 (3) **OR** HIS 109 – History of the US Since 1865 (3)	o CIT 180 – Security Fundamentals (3) o CIT 120 – Computational Thinking (3)	KCTCS Security Prep + AND Computer Technician Certificates
12	o ENG 101 – Writing I (3) o MAT 126 – Technical Algebra & Trigonometry (3) or higher o BIO 112 – Intro to Biology (3) o PSY 110 – General Psychology (3)	o CIT 144 – Python I (3) o Track 1 course (3)	KCTCS CIT Fundamentals Certificate High School Diploma
13		Fall: o Track 2 course (3) o Track 3 course (3) o Track 4 course (3) o Track 5 course (3-4) Spring: o Track 6 course (3-4) o Track 7 course (3-4)	Various KCTCS Certificates depending on Track CIT AAS in one CIT Track

Grade	General Education	Technical Core	Diploma, Certification(s), Certificate(s), Degree(s)
9	o English I (1) o Algebra I (1) o Biology I (1) o Social Studies (1) o Physical Education (.5) o Health (.5)		
10	o English II (1) o Geometry (1) o Science Course (1) o Social Studies (1) o Visual and Performing Arts (1)		
11	o English III (1) o Algebra II (1) o Science Course (1) o HIS 108 – History of the US Through 1865 (3) **OR** HIS 109 – History of the US Since 1865 (3)	o CIT 105 – Introduction to Computers (3) o CIT 111 – Computer Hardware & Software (4)	KCTCS A+ Prep Certificate
12	o ENG 101 – Writing I (3) o MAT 126 – Technical Algebra & Trigonometry (3) or higher o BIO 112 – Intro to Biology (3) o PSY 110 – General Psychology (3)	o CIT 170 – Database Design Fundamentals (3) o CIT 160 – Introduction to Networking Concepts (4) **OR** CIT 161 – Introduction to Networks (4)*	High School Diploma
13		Fall: o CIT 180 – Security Fundamentals (3) o CIT 120 – Computational Thinking (3) o CIT 144 – Python I (3) o Track 1 course (3) o Track 2 course (3) Spring: o Track 3 course (3) o Track 4 course (3) o Track 6 course (3-4) o Track 7 course (3-4)	KCTCS Security Prep + AND Computer Technician Certificates KCTCS CIT Fundamentals Certificate Various KCTCS Certificates depending on Track CIT AAS in one CIT Track

* The curriculum for CIT 161 should match that of the KCTCS college where the student is earning the credit. High schools are highly encouraged to consult with the college CIT Program Coordinator before offering CIT 161.

Note: these are model pathways. Each high school will have to develop its pathway based on the college's dual credit course offerings.

DIESEL TECHNOLOGY
Secondary-Postsecondary Pathway
Effective date: 2019-2020

Postsecondary Institution: KCTCS (Institutions TBD)
Secondary School:

Pathway: Medium & Heavy Equipment AAS (Diesel Technology)
College Credit: 40-51 hours in HS out of 64 credits

Courses have to be completed at the college by the college instructor to earn dual credit due to ASE accreditation. Students taking these courses in high school will not be eligible for dual credit.

Grade	General Education	Technical Core	Diploma, Certification(s), Certificate(s), Degree(s)
9	o English I (1) o Algebra I (1) o Biology I (1) o Social Studies (1) o Physical Education (.5) o Health (.5)	o ADX 120/121 – Basic Automotive Electricity & Lab (5) o ADX 260/261 – Electrical Systems & Lab (5)	KCTCS Automotive Electrician Certificate
10	o English II (1) o Geometry (1) o Science Course (1) o Social Studies (1) o Visual and Performing Arts (1)	o ADX 150/151 – Engine Repair & Lab (5) o ADX 170/171 – Climate Control & Lab (4)	KCTCS Engine Repair Certificate KCTCS Mobile A/C Mechanic AND Automotive A/C Mechanic Certificates
11	o English (1) o Mathematics (1) o Science Course (1) o HIS 108 – History of the US Through 1865 (3) **OR** HIS 109 – History of the US Since 1865 (3)	o DIT 150/151 – Power Trains & Lab (5) o DIT 160/161 – Steering & Suspensions & Lab (5)	KCTCS Diesel Steering & Suspension Mechanic Certificate
12	o ENG 101 – Writing I (3) o MAT 116 – Technical Mathematics (3) or higher o BIO 112/113 – Intro to Biology & Lab (4) o PSY 110 – General Psychology (3)	o WLD 120/121 – Shielded Metal Arc Welding & Lab (5) **OR** IMT 100/101 – Welding for Maintenance & Lab (5) **OR** DIT 121 Welding for Maintenance Lab (3) o DIT 103 – Preventative Maintenance Lab (2)	KCTCS Preventative Maintenance Mechanic Certificate High School Diploma
13		Fall Semester: o Digital Literacy (0-3) o DIT 180/181 – Brakes & Lab (5) o DIT 112/113 – Diesel Engine Repair & Lab (5) o DIT 140/141 – Hydraulics & Lab (5) **OR** FPX 100/101 – Fluid Power & Lab (5)	KCTCS Diesel Engine Mechanic Cert. KCTCS Fluid Mechanic Certificate KCTCS Medium & Heavy Truck Technician Diploma and AAS

Grade	General Education	Technical Core	Diploma, Certification(s), Certificate(s), Degree(s)
9	o English I (1) o Algebra I (1) o Biology I (1) o Social Studies (1) o Physical Education (.5) o Health (.5)		
10	o English II (1) o Geometry (1) o Science Course (1) o Social Studies (1) o Visual and Performing Arts (1)		
11	o English III (1) o Mathematics (1) o Science Course (1) o HIS 108 – History of the US Through 1865 (3) **OR** HIS 109 – History of the US Since 1865 (3)	o ADX 120/121 – Basic Automotive Electricity & Lab (5) o ADX 260/261 – Electrical Systems & Lab (5)	KCTCS Automotive Electrician Certificate
12	o ENG 101 – Writing I (3) o MAT 116 – Technical Mathematics (3) or higher o BIO 112/113 – Intro to Biology & Lab (4) o PSY 110 – General Psychology (3)	o ADX 150/151 – Engine Repair & Lab (5) o ADX 170/171 – Climate Control & Lab (4)	KCTCS Engine Repair Certificate KCTCS Mobile A/C Mechanic AND Automotive A/C Mechanic Certificates High School Diploma
13		Fall Semester: o DIT 103 – Preventative Maintenance Lab (2) o DIT 150/151 – Power Trains & Lab (5) o DIT 160/161 – Steering & Suspensions & Lab (5) o WLD 120/121 – Shielded Metal Arc Welding & Lab (5) **OR** IMT 100/101 – Welding for Maintenance & Lab (5) **OR** DIT 121 – Welding for Maintenance Lab (3) Spring Semester: o Digital Literacy (0-3) o DIT 112/113 – Diesel Engine Repair & Lab (5) o DIT 140/141 – Hydraulics & Lab (5) **OR** FPX 100/101 – Fluid Power & Lab (5) o DIT 180/181 – Brakes/ Lab (5)	KCTCS Diesel Steering & Suspension Mechanic Certificate KCTCS Preventative Maintenance Mechanic Certificate KCTCS Diesel Engine Mechanic Cert. KCTCS Fluid Mechanic Certificate KCTCS Medium & Heavy Truck Technician Diploma and AAS

Note: these are model pathways. Each high school will have to develop its pathway based on the college's dual credit course offerings.

ELECTRICAL TECHNOLOGY
Secondary-Postsecondary Pathway
Effective date: 2019-2020

Postsecondary Institution: KCTCS (Institutions TBD)
Secondary School:

Pathway: Industrial Electrician AAS
College Credit: 35-52 Hours in HS

Grade	General Education	Technical Core	Diploma, Certifications(s), Certificate(s), Degree(s)
9	o English I (1) o Algebra I (1) o Biology I (1) o Social Studies (1) o Physical Education (.5) o Health (.5)	o CIT 105 – Introduction to Computers (3) o FPX 100/101 – Fluid Power & Lab (5)	
10	o English II (1) o Geometry (1) o Science Course (1) o Social Studies (1) o Visual and Performing Arts (1)	o BRX 120 – Basic Blueprint Reading (3) **OR** BRX 220 – Blueprint Reading for Construction (3) o EET 119 – Basic Electricity (5) **OR** ELT 110 – Circuits 1 (5)	KCTCS Electrician Trainee Level I & Level II Certificates
11	o COM 181 – Oral Communications (3) **OR** COM 252 – Intro to Interpersonal Communications (3) o Mathematics (1) o Science Course (1) o HIS 108 – History of the US Through 1865 (3) **OR** HIS 109 -History of the US Since 1865 (3)	o EET 154/155 – Electrical Construction I & Lab (4) o IMT 100/101 – Welding for Maintenance & Lab (5)	KCTCS Residential Electricity Level I Certificate
12	o ENG 101 – Writing I (3) o MAT 116 – Technical Mathematics (3) or higher o BIO 112/113 – Intro to Biology & Lab (4) o PSY 110 – General Psychology (3)	o EET 250 – National Electrical Code (4) o EET 252/523 – Electrical Construction II & Lab (4)	KCTCS Residential Electricity Level II Certificate High School Diploma
13		Fall: o EET 264/265 – Rotating Machinery & Lab (4) o EET 270/271 – Electrical Motor Controls & Lab (4) o EET 127 - Electrical Capstone (1) Spring: o EET 272/273 – Electrical Motor Controls II & Lab (4) o EET 276/277 – Programmable Logic Controllers & Lab (4)	KCTCS Industrial Electrician Diploma & AAS

Grade	General Education	Technical Core	Diploma, Certifications(s), Certificate(s), Degree(s)
9	o English I (1) o Algebra I (1) o Biology I (1) o Social Studies (1) o Physical Education (.5) o Health (.5)		
10	o English II (1) o Geometry (1) o Science Course (1) o Social Studies (1) o Visual and Performing Arts (1)		
11	o COM 181 – Oral Communications (3) **OR** COM 252 – Intro to Interpersonal Communications (3) o Mathematics (1) o Science Course (1) o HIS 108 – History of the US Through 1865 (3) **OR** HIS 109 – History of the US Since 1865 (3)	o CIT 105 – Introduction to Computers (3) o FPX 100/101 – Fluid Power & Lab (5)	
12	o ENG 101 – Writing I (3) o MAT 116 –Technical Mathematics (3) or higher o BIO 112/113 – Intro to Biology & Lab (4) o PSY 110 – General Psychology (3)	o BRX 120 – Basic Blueprint Reading (3) **OR** BRX 220 – Blueprint Reading for Construction (3) o EET 119 – Basic Electricity (5) **OR** ELT 110 – Circuits 1 (5)	KCTCS Electrician Trainee Level I & Level II Certificates High School Diploma
13		Fall o EET 154/155 – Electrical Construction I & Lab (4) o EET 252/523 – Electrical Construction II & Lab (4) o Track Specific Elective (4-5) Spring o EET 250 – National Electrical Code (4) o EET 264/265 – Rotating Machinery & Lab (4) o EET 270/271 – Electrical Motor Controls & Lab (4)	KCTCS Residential Electricity Level I Certificate KCTCS Residential Electricity Level II Certificate
14		Fall: o EET 127 – Electrical Capstone (1) o EET 272/273 – Electrical Motor Controls II & Lab (4) o EET 276/277 – Programmable Logic Controllers & Lab (4)	KCTCS Industrial Electrician Diploma & AAS

Note: these are model pathways. Each high school will have to develop its pathway based on the college's dual credit course offerings.

EMERGENCY MEDICAL SERVICES – PARAMEDIC
Secondary-Postsecondary Pathway
Effective date: 2019-2020

Postsecondary Institution: KCTCS (Institutions TBD)
Secondary School:

Pathway: Emergency Medical Services – Paramedic
College Credit: 37 hours in HS out of 60-64 credits

202KAR 7:301 mandates that students have to be at least 16 years of age to be eligible to enroll in an EMT education program and hold a valid driver's license. Most KCTCS partner providers require the student to be at least 18 years old before they can participate in the clinical experience.

Grade	General Education	Technical Core	Diploma, Certification(s), Certificate(s), Degree(s)
9	o English I (1) o Algebra I (1) o Biology I (1) o Social Studies (1) o Physical Education (.5) o Health (.5)		
10	o English II (1) o Geometry (1) o Science Course (1) o Social Studies (1) o Visual and Performing Arts (1)		
11	o COM 181 – Oral Communications (3) **OR** COM 252 – Intro to Interpersonal Communications (3) o Mathematics (1) o Science Course (1) o HIS 108 – History of the US Through 1865 (3) **OR** HIS 109 – History of the US Since 1865 (3)	o CIT 105 – Introduction to Computers (3) o AHS 115 – Medical Terminology (3) **OR** CLA 131 – Medical Terminology from Greek & Latin (3)	
12	o ENG 101 – Writing I (3) o MAT 110 – Applied Mathematics (3) or higher o BIO 135 – Basic Anatomy & Physiology with Lab (4) o PSY 110 – General Psychology (3)	o FRS 2061* – Emergency Medical Technician (6) **OR** EMS 105* – Emergency Medical Technician (6) Students are required to hold current unrestricted registration with the National Registry EMT as an EMT to be eligible for the program. Individuals desiring initial certification as an EMT must be 18 years of age and hold a high school diploma or GED.	High School Diploma

Grade	General Education	Technical Core	Diploma, Certification(s), Certificate(s), Degree(s)
13		Fall o EMS 200 – Introduction to Paramedicine (4) o EMS 210 – Emergency Pharmacology (3) o EMS 211 – Fundamentals Lab (2) o EMS 215 – Clinical Experience I (1) o EMS 220 – Cardiovascular Emergencies (3) o EMS 221 – Cardiac and Trauma Lab (1) o EMS 225 – Clinical Experience I (1) Spring o EMS 230 – Traumatic Emergencies (4) o EMS 231 – Medical Lab (1) o EMS 235 – Clinical Experience III (2) o EMS 240 – Medical Emergencies I (3) o EMS 250 – Medical Emergencies II (3)	
14		Fall o EMS 260 – Special Populations (3) o EMS 270 – EMS Operations (1) o EMS 275 – Seminar in Advances Life Support (ALS) (1) o EMS 285 – Field Internship & Summation (5-6)	KCTCS Emergency Medical Services Paramedic Certificate and AAS

Note: these are model pathways. Each high school will have to develop its pathway based on the college's dual credit course offerings.

INDUSTRIAL MAINTENANCE TECHNOLOGY
Secondary-Postsecondary Pathway
Effective date: 2019-2020

Postsecondary Institution: KCTCS (Institutions TBD)
Secondary School:

Pathway: Industrial Maintenance Technology
College Credit: 37-58 Hours in HS out of 60-68 credits

Grade	General Education	Technical Core	Diploma, Certification(s), Certificate(s), Degree(s)
9	o English I (1) o Algebra I (1) o Biology I (1) o Social Studies (1) o Physical Education (.5) o Health (.5)	o FPX 100/101 – Fluid Power & Lab (5) o IMT 110/111 – Industrial Maintenance Electrical Principles & Lab (5)	
10	o English II (1) o Geometry (1) o Science Course (1) o Social Studies (1) o Visual and Performing Arts (1)	o IMT 150/151 – Maintaining Industrial Equipment & Lab (5) o BRX 120 – Basic Blueprint Reading (3)	KCTCS Industrial Maintenance Mechanic Level I Certificate
11	o COM 181 – Oral Communications (3) **OR** COM 252 – Intro to Interpersonal Communications (3) o Mathematics (1) o Science Course (1) o HIS 108 – History of the US Through 1865 (3) **OR** HIS 109 – History of the US Since 1865 (3)	o IMT 100/101 – Welding for Maintenance & Lab (5) o CMM 114 – Fundamentals of Machine Tools (6)	KCTCS Ind. Maintenance Mechanic Level II Certificate and KCTCS Ind. Maintenance Machinists Mechanic Certificate
12	o ENG 101 – Writing I (3) o MAT 116 – Technical Math (3) or higher o PHY 171 – Applied Physics (4) o POL 101 – American Government (3) **OR** PSY 110 – General Psychology (3)	o IMT 220/221 – Industrial Maintenance Electrical Motor Controls I & Lab (5) o IMT 280/281 – Advanced Programmable Logic Controllers & Lab (5)	KCTCS Industrial Maintenance Electrical Mechanic Certificate High School Diploma
13		Fall: o IMT 200 – Industrial Robotic & Robotic Maintenance (4) o MST 200/201 – Advanced Hydraulic Systems & Lab (5) o Digital Literacy Requirement (0-3) o IMT 289 – Industrial Maintenance Technology Capstone (1)	KCTCS Industrial Maintenance Robotic Technician Certificate KCTC Fluid Power Mechanic Certificate KCTCS Industrial Maintenance Technician Diploma KCTCS Industrial Maintenance AAS

Grade	General Education	Technical Core	Diploma, Certification(s), Certificate(s), Degree(s)
9	o English I (1) o Algebra I (1) o Biology I (1) o Social Studies (1) o Physical Education (.5) o Health (.5)		
10	o English II (1) o Geometry (1) o Science Course (1) o Social Studies (1) o Visual and Performing Arts (1)		
11	o COM 181 – Oral Communications (3) **OR** COM 252 – Intro to Interpersonal Communications (3) o Mathematics (1) o Science Course (1) o HIS 108 – History of the US Through 1865 (3) **OR** HIS 109 – History of the US Since 1865 (3)	o FPX 100/101 – Fluid Power & Lab (5) o IMT 110/111 – Industrial Maintenance Electrical Principles & Lab (5)	
12	o ENG 101 – Writing I (3) o MAT 116 – Technical Math (3) or higher o PHY 171 – Applied Physics (4) o POL 101 – American Government (3) **OR** PSY 110 – General Psychology (3)	o IMT 150/151 – Maintaining Industrial Equipment & Lab (5) o BRX 120 – Basic Blueprint Reading (3)	KCTCS Industrial Maintenance Mechanic Level I Certificate High School Diploma
13		Fall: o IMT 100/101 – Welding for Maintenance & Lab (5) o CMM 114 – Fundamentals of Machine Tools (6) o IMT 220/221 – Industrial Maintenance Electrical Motor Controls I & Lab (5) o IMT 200 – Industrial Robotic & Robotic Maintenance (4) Spring: o MST 200/201 – Advanced Hydraulic Systems & Lab (5) o IMT 280/281 – Advanced Programmable Logic Controllers & Lab (5) o Digital Literacy Requirement (0-3) o IMT 289 – Industrial Maintenance Technology Capstone (1)	KCTCS Ind. Maintenance Mechanic Level II Certificate and KCTCS Ind. Maintenance Machinists Mechanic Certificate KCTCS Industrial Maintenance Robotic Technician Certificate KCTC Fluid Power Mechanic Certificate KCTCS Industrial Maintenance Electrical Mechanic Certificate KCTCS Industrial Maintenance Technician Diploma KCTCS Industrial Maintenance AAS

Note: these are model pathways. Each high school will have to develop its pathway based on the college's dual credit course offerings.

INTERDISCIPLINARY EARLY CHILDHOOD EDUCATION

Secondary-Postsecondary Pathway
Effective date: 2019-2020

Postsecondary Institution: KCTCS (Institutions TBD)

Secondary School:

Pathway: Interdisciplinary Early Childhood Education

College Credit: 28-40 Hours in HS out of 60-64 credits

Grade	General Education	Technical Core	Diploma, Certification(s), Certificate(s), Degree(s)
9	o English I (1) o Algebra I (1) o Biology I (1) o Social Studies (1) o Physical Education (.5) o Health (.5)	o CIT 105 – Introduction to Computers (3) o IEC 101 – Orientation to Early Childhood Education (3)	KCTC KY Childcare Provider Cert.*
10	o English II (1) o Geometry (1) o Science Course (1) o Social Studies (1) o Visual and Performing Arts (1)	o IEC 102 – Foundations of Early Childhood Education (3) o IEC 130 – Early Childhood Development (3)	KCTCS Child Care Assistant Cert.
11	o COM 181 – Oral Communications (3) **OR** COM 252 – Intro to Interpersonal Communications (3) o Mathematics (1) o Science Course (1) o HIS 108 – History of the US Through 1865 (3) **OR** HIS 109 – History of the US Since 1865 (3)	o IEC 170 – Observation & Assessment (3) o IEC 200 – Child Guidance (3)	
12	o ENG 101 – Writing I (3) o MAT 105 – Business Mathematics (3) or higher o PHY 171 – Applied Physics (4) o PSY 110 – General Psychology (3)	o IEC XXX – Technical Support Elective Course 1 (3) o IEC XXX – Technical Support Elective 2 (3)	KCTCS Certificates are available depending on the courses selected. High School Diploma
13	o ENG 102 – Writing II (3)	Fall: o IEC 180 – Approaches to Early Childhood Education Curriculum (3) o IEC 216 – Literacy & Language in IECE (3) o IEC 221 – Creative Expressions in IECE (3) Spring: o IEC 246 – Sciences & Mathematics for IEC (3) o IEC 235 – Introduction to Inclusive Education (3) o IEC 291 – IECE Practicum/Cooperative Education (3)	KCTCS Interdisciplinary Early Childhood Education Diploma & AAS

Grade	General Education	Technical Core	Diploma, Certification(s), Certificate(s), Degree(s)
9	o English I (1) o Algebra I (1) o Biology I (1) o Social Studies (1) o Physical Education (.5) o Health (.5)		
10	o English II (1) o Geometry (1) o Science Course (1) o Social Studies (1) o Visual and Performing Arts (1)		
11	o COM 181 – Oral Communications (3) **OR** COM 252 – Intro to Interpersonal Communications (3) o Mathematics (1) o Science Course (1) o HIS 108 – History of the US Through 1865 (3) **OR** HIS 109 – History of the US Since 1865 (3)	o CIT 105 – Introduction to Computers (3) o IEC 101 – Orientation to Early Childhood Education (3)	KCTC KY Childcare Provider Cert.*
12	o ENG 101 – Writing I (3) o MAT 105 – Business Mathematics (3) or higher o PHY 171 – Applied Physics (4) o PSY 110 – General Psychology (3)	o IEC 102 – Foundations of Early Childhood Education (3) o IEC 130 – Early Childhood Development (3)	KCTCS Child Care Assistant Cert. High School Diploma
13	o ENG 102 – Writing II (3)	Fall: o IEC 170 – Observation & Assessment (3) o IEC 200 – Child Guidance (3) o IEC XXX – Technical Support Elective Course 1 (3) o IEC XXX – Technical Support Elective 2 (3) Spring: o IEC 180 – Approaches to Early Childhood Education Curriculum (3) o IEC 216 – Literacy & Language in IECE (3) o IEC 221 – Creative Expressions in IECE (3) o IEC 246 – Sciences & Mathematics for IEC (3)	KCTCS Certificates are available depending on the courses selected.
14		Fall: o IEC 235 – Introduction to Inclusive Education (3) o IEC 291 – IECE Practicum/Cooperative Education (3)	KCTCS Interdisciplinary Early Childhood Education AAS

*Students can apply for the Commonwealth Credential upon completion of this course.

Note: these are model pathways. Each high school will have to develop its pathway based on the college's dual credit course offerings.

MASONRY
Secondary-Postsecondary Pathway
Effective date: 2019-2020

Postsecondary Institution: KCTCS (Institutions TBD) **Pathway:** Masonry Diploma 48-51
Secondary School: **College Credit:** 18-30 Hours in HS out of 48-51

Grade	General Education	Technical Core	Diploma, Certification(s), Certificate(s), Degree(s)
9	o English I (1) o Algebra I (1) o Biology I (1) o Social Studies (1) o Physical Education (.5) o Health (.5)	o CIT 105 – Introduction to Computers (3) **OR** 　OST 105 – Introduction to Information Systems (3) o MSY 105 – Introductory Masonry (3)	
10	o English II (1) o Geometry (1) o Science Course (1) o Social Studies (1) o Visual and Performing Arts (1)	o ISX 100 – Industrial Safety (3) **OR** 　ISX 101 – Introduction to Safety (3) o MSY 215 – Masonry Lab (3)	
11	o English III (1) o Mathematics (1) o Science Course (1) o Social Studies (1)	o BRX 220 – Blueprint Reading for Construction (3) o MSY 291 – Masonry Applications (1-3)	KCTCS Bricklayer Helper Certificate
12	o ENG 101 – Writing I (3) o MAT 105 – Business Mathematics (3) or higher o Science Course (1) o Social Studies (1)	o MSY 205 – Advanced Masonry (3) o MSY 245 – Anchors and Reinforcement (3)	High School Diploma
13		Fall: o MSY 215 – Masonry Lab (3) o MSY 225 – Brick Construction (3) o MSY 253 – Masonry Floors and Steps (3) o MSY 257 – Stone (3) o MSY 275 – Fireplace Construction (3) Spring: o MSY 199 – Cooperative Education (3) **OR** 　MSY 198 – Practicum (3) o MSY 235 – Special Techniques in Brick Construction (3) o MSY XXX – Technical Elective (3) o MSY 299 – Cooperative Education (3) **OR** 　MSY 298 – Practicum (3)	KCTCS Stone Mason Certificate KCTCS Bricklayer Trainee Certificate KCTCS Construction Bricklayer Certificate & KCTCS Masonry Diploma

Grade	General Education	Technical Core	Diploma, Certification(s), Certificate(s), Degree(s)
9	o English I (1) o Algebra I (1) o Biology I (1) o Social Studies (1) o Physical Education (.5) o Health (.5)		
10	o English II (1) o Geometry (1) o Science Course (1) o Social Studies (1) o Visual and Performing Arts (1)		
11	o English III (1) o Mathematics (1) o Science Course (1) Social Studies (1)	o CIT 105 – Introduction to Computers (3) **OR** OST 105 – Introduction to Information Systems (3) o MSY 105 – Introductory Masonry (3)	
12	o ENG 101 – Writing I (3) o MAT 105 – Business Mathematics (3) or higher o Science Course (1) o Social Studies (1)	o ISX 100 – Industrial Safety (3) **OR** ISX 101 – Introduction to Safety (3) o MSY 215 – Masonry Lab (3)	High School Diploma
13		Fall o BRX 220 – Blueprint Reading for Construction (3) o MSY 205 – Advanced Masonry (3) o MSY 215 – Masonry Lab (3) o MSY 245 – Anchors and Reinforcement (3) o MSY 291 – Masonry Applications (1-3) Spring: o MSY 225 – Brick Construction (3) o MSY 253 – Masonry Floors and Steps (3) o MSY 257 – Stone (3) o MSY 275 – Fireplace Construction (3) o MSY 199 – Cooperative Education (3) **OR** MSY 198 – Practicum (3)	KCTCS Bricklayer Helper Certificate KCTCS Bricklayer Trainee Certificate
14		Fall: o MSY 235 – Special Techniques in Brick Construction (3) o MSY XXX – Technical Elective (3) o MSY 299 – Cooperative Education (3) **OR** MSY 298 – Practicum (3)	KCTCS Construction Bricklayer Certificate & KCTCS Masonry Diploma

Note: these are model pathways. Each high school will have to develop its pathway based on the college's dual credit course offerings.

MEDICAL ASSISTING
Secondary-Postsecondary Pathway
Effective date: 2019-2020

Postsecondary Institution: KCTCS (Institutions TBD)   **Pathway:** Medical Assisting*

Secondary School: **College Credit:** 23-24 Hours in HS out of 61-68 credits

This is a selective admissions program. Acceptance into the program is required before enrolling in MAI coursework. The dual credit courses listed below will count towards that program upon admission but will also count for other Allied Health pathways.

Grade	General Education	Technical Core	Diploma, Certifications(s), Certificate(s), Degree(s)
9	o English I (1) o Algebra I (1) o Biology I (1) o Social Studies (1) o Physical Education (.5) o Health (.5)		
10	o English II (1) o Geometry (1) o Science Course (1) o Social Studies (1) o Visual and Performing Arts (1)	o AHS 115 – Medical Terminology (3) **OR** CLA 131 – Medical Terminology from Greek or Latin (3) **OR** MIT 103 – Medical Office Terminology (3)	
11	o English III (1) o Mathematics (1) o Science Course (1) o HIS 108 – History of the US Through 1865 (3) **OR** HIS 109 – History of the US Since 1865 (3)	o CIT 105 – Introduction to Computers (3) **OR** OST 105 – Introduction to Information Systems (3)	
12	o ENG 101 – Writing I (3) o MAT 105 – Business Mathematics (3) or higher o BIO 135 – Basic Anatomy & Physiology with Laboratory (4) o PSY 110 – General Psychology (3)	o CPR 100 – CPR for Healthcare Professionals (1) **OR** KHP 190 – First Aid & Emergency Care (2)	High School Diploma
13		Fall: o MAI 140 – Medical Assisting Clinical Procedures (4) o MAI 105 – Introduction to Medical Assisting (3) o MAI 150 – Medical Assisting Admin. Procedures (3) o MAI 250 – Medical Assisting Admin. Procedures II (3) o MAI 281 – Medical Assisting Practicum (3) Spring: o MAI 230 – Medical Insurance (3) o MAI 120 – Medical Assisting Laboratory Techniques I (3) o MAI 170 – Dosage Calculations (2) o MAI 200 – Pathophysiology for the Medical Assistant (3) o MAI 220 – Medical Assisting Laboratory Techniques II (3)	KCTCS Electrocardiograph Tech. Cert. KCTCS Medical Office Administrative Assistant Certificate KCTCS Medical Office Insurance Billing & Coding Certificate
14		Fall: o MAI 240 – Medical Assisting Clinical Procedures II (4) o MAI 270 – Pharmacology for the Medical Assistant (3) o MAI 289 – Medical Assisting Assessment Preparation (1-2) o MAI 284 – Medical Assisting Externship (2-3)	KCTCS Medical Assisting Diploma & AAS

Grade	General Education	Technical Core	Diploma, Certifications(s), Certificate(s), Degree(s)
9	o English I (1) o Algebra I (1) o Biology I (1) o Social Studies (1) o Physical Education (.5) o Health (.5)		
10	o English II (1) o Geometry (1) o Science Course (1) o Social Studies (1) o Visual and Performing Arts (1)		
11	o English III (1) o Mathematics (1) o Science Course (1) o HIS 108 – History of the US Through 1865 (3) **OR** HIS 109 – History of the US Since 1865 (3)	o AHS 115 – Medical Terminology (3) **OR** CLA 131 – Medical Terminology from Greek or Latin (3) **OR** MIT 103 – Medical Office Terminology (3) o CIT 105 – Introduction to Computers (3) **OR** OST 105 – Introduction to Information Systems (3)	
12	o ENG 101 – Writing I (3) o MAT 105– Business Mathematics (3) or higher o BIO 135 – Basic Anatomy & Physiology with Laboratory (4) o PSY 110 – General Psychology (3)	o CPR 100 – CPR for Healthcare Professionals (1) **OR** KHP 190 – First Aid & Emergency Care (2)	High School Diploma
13		Fall: o MAI 140 – Medical Assisting Clinical Procedures (4) o MAI 105 – Introduction to Medical Assisting (3) o MAI 150 – Medical Assisting Admin. Procedures (3) o MAI 250 – Medical Assisting Admin. Procedures II (3) o MAI 281 – Medical Assisting Practicum (3) Spring: o MAI 230 – Medical Insurance (3) o MAI 120 – Medical Assisting Laboratory Techniques I (3) o MAI 170 – Dosage Calculations (2) o MAI 200 – Pathophysiology for the Medical Assistant (3) o MAI 220 – Medical Assisting Laboratory Techniques II (3)	KCTCS Electrocardiograph Tech. Cert. KCTCS Medical Office Administrative Assistant Certificate KCTCS Medical Office Insurance Billing & Coding Certificate
14		Fall o MAI 240 – Medical Assisting Clinical Procedures II (4) o MAI 270 – Pharmacology for the Medical Assistant (3) o MAI 289 – Medical Assisting Assessment Preparation (1-2) o MAI 284 – Medical Assisting Externship (2-3)	KCTCS Medical Assisting Diploma & AAS

Note: these are model pathways. Each high school will have to develop its pathway based on the college's dual credit course offerings.

MEDICAL INFORMATION TECHNOLOGY
Secondary-Postsecondary Pathway
Effective date: 2019-2020

Postsecondary Institution: KCTCS (Institutions TBD)
Secondary School:

Pathway: Medical Information Technology - Multiple tracks
College Credit: 31- 43 hours in HS out of 64 credits

Grade	General Education	Technical Core	Diploma, Certification(s), Certificate(s), Degree(s)
9	o English I (1) o Algebra I (1) o Biology I (1) o Social Studies (1) o Physical Education (.5) o Health (.5)	o CIT 105 – Introduction to Computers (3) **OR** OST 105 – Introduction to Information Systems (3) o OST 110 – Document Formatting & Word Processing (3)	
10	o English II (1) o Geometry (1) o Science Course (1) o Social Studies (1) o Visual and Performing Arts (1)	o AHS 115 – Medical Terminology (3) **OR** CLA 131 – Medical Terminology from Greek or Latin (3) **OR** MIT 103 – Medical Office Terminology (3) o MIT 230 – Medical Information Management (3)	
11	o COM 181 – Oral Communications (3) **OR** COM 252 – Intro to Interpersonal Communications (3) o Mathematics (1) o Science Course (1) o HIS 108 – History of the US Through 1865 (3) **OR** HIS 109 – History of the US Since 1865 (3)	o MIT 217 – Medical Office procedures (3) o MIT 104 – Medial Insurance (3)	KCTCS Medical Receptionist Cert.
12	o ENG 101 – Writing I (3) o MAT 105 – Business Mathematics (3) or higher o BIO 135 – Basic Anatomy & Physiology with Laboratory (4) o PSY 110 – General Psychology (3)	o MIT 224 – Medical Practice Management (3) o MIT 228 – Electronic Medical Records (3)	KCTCS Medical Unit Coord. Cert. High School Diploma
13		o OST 240 – Software Integration (3) **OR** CIT 130 – Productivity Software (3) o Track 1 Course (3) o Track 2 Course (3) o Track 3 Course (3) o Track 4 Course (3) o Track 5 Course (3) o MIT 295 – Medical Information Technology Capstone (3)	KCTCS Track X Diploma & AAS

Grade	General Education	Technical Core	Diploma, Certification(s), Certificate(s), Degree(s)
9	o English I (1) o Algebra I (1) o Biology I (1) o Social Studies (1) o Physical Education (.5) o Health (.5)		
10	o English II (1) o Geometry (1) o Science Course (1) o Social Studies (1) o Visual and Performing Arts (1)		
11	o COM 181 – Oral Communications (3) **OR** COM 252 – Intro to Interpersonal Communications (3) o Mathematics (1) o Science Course (1) o HIS 108 – History of the US Through 1865 (3) **OR** HIS 109 – History of the US Since 1865 (3)	o CIT 105 – Introduction to Computers (3) **OR** OST 105 – Introduction to Information Systems (3) o OST 110 – Document Formatting & Word Processing (3)	
12	o ENG 101 – Writing I (3) o MAT 105– Business Mathematics (3) or higher o BIO 135 – Basic Anatomy & Physiology with Laboratory (4) o PSY 110 – General Psychology (3)	o AHS 115 – Medical Terminology (3) **OR** CLA 131 – Medical Terminology from Greek or Latin (3) **OR** MIT 103 – Medical Office Terminology (3) o MIT 230 – Medical Information Management (3)	High School Diploma
13		o MIT 217 – Medical Office procedures (3) o MIT 104 – Medial Insurance (3) o MIT 224 – Medical Practice Management (3) o MIT 228 – Electronic Medical Records (3) o OST 240 – Software Integration (3) **OR** CIT 130 – Productivity Software (3) o Track 1 Course (3) o Track 2 Course (3) o Track 3 Course (3) o Track 4 Course (3)	KCTCS Medical Receptionist Cert. KCTCS Medical Unit Coord. Cert.
14		o Track 5 Course (3) o MIT 295 – Medical Information Technology Capstone (3)	KCTCS Track X Diploma & AAS

Note: these are model pathways. Each high school will have to develop its pathway based on the college's dual credit course offerings.

NURSING
Secondary-Postsecondary Pathway
Effective Date: 2019-2020

Postsecondary Institution: KCTCS (Institutions TBD)
Secondary School:

Pathway: Nursing*
College Credit: 20-24 Hours in HS out of 62-66

Acceptance into the Associate Degree Nursing program is based on a selective admission process. Applicants must comply with college and program admission requirements to be considered for admission. Admission into the program is required before the student can enroll in the NSG courses. The courses offered for dual credit in high school will count towards that program upon admission but will also count for several other pathways.

Grade	General Education	Technical Core	Diploma, Certification(s), Certificate(s), Degree(s)
9	o English I (1) o Algebra I (1) o Biology I (1) o Social Studies (1) o Physical Education (.5) o Health (.5)		
10	o English II (1) o Geometry (1) o Science Course (1) o Social Studies (1) o Visual and Performing Arts (1)		
11	o COM 181 – Oral Communications (3) **OR** COM 252 – Intro to Interpersonal Communications (3) o Mathematics (1) o BIO 137 – Human Anatomy & Physiology I (4) o HIS 108 – History of the US Through 1865 (3) **OR** HIS 109 – History of the US Since 1865 (3)		
12	o ENG 101 – Writing I (3) o MAT 105 – Business Mathematics (3) or higher o BIO 139 – Human Anatomy & Physiology II (4) o PSY 110 – General Psychology (3)	o NAA 100 – Nursing Assistant Skills (0-3) o CPR 100 – CPR for Healthcare Professionals (0-1)	High School Diploma
13	o BIO 225 – Medical Microbiology (4)	o NSG 101 – Nursing Practice I (9) (**OR** other courses available) o NSG 210 – Medical/Surgical Nursing I (6) o NSG 211 – Maternal Newborn Nursing (3) o NSG 212 – Behavioral Health Nursing (3) o NSG 213 – Pediatric Nursing (3) o NSG 215 – Pharmacology I (1)	
14		o NSG 220 – Medical/Surgical Nursing II (6) o NSG 225 – Pharmacology II (1) o NSG 230 – Medical/Surgical Nursing III (6)	KCTCS Nursing AAS

Note: these are model pathways. Each high school will have to develop its pathway based on the college's dual credit course offerings.

PARALEGAL
Secondary-Postsecondary Pathway
Effective date: 2020-2021

Postsecondary Institution: KCTCS (Institutions TBD)
Secondary School:

Pathway: Paralegal Technology AAS
College Credit: 34 Hours in HS out of 66

Grade	General Education	Technical Core	Diploma, Certification(s), Certificate(s), Degree(s)
9	o English I (1) o Algebra I (1) o Biology I (1) o Social Studies (1) o Physical Education (.5) o Health (.5)		
10	o English II (1) o Geometry (1) o Science Course (1) o Social Studies (1) o Visual and Performing Arts (1)	o CIT 105 – Introduction to Computers (3)*	
11	o ENG 101 – Writing I (3)* o Mathematics (1) o Science Course (1) o HIS 108 – History of the US Through 1865 (3) **OR** HIS 109 – History of the US Since 1865 (3)	o CRJ XXX – Criminal Justice Elective Course (3) o CIT 130 – Productivity Software (3)	
12	o COM 181 – Oral Communications (3) **OR** COM 252 – Intro to Interpersonal Communications (3) o MAT 105 – Business Mathematics (3) or higher o BIO 112/113 – Intro to Biology & Lab (4) o PSY 110 – General Psychology (3)	o PGL 111 – Legal Systems and Terminology (3) o PGL 112 – Legal Research (3)	High School Diploma
13	o Gen Ed Elective (3)	o PGL 113 – Law Office Management (3) o PGL 211 – Family Law (3) o PGL 233 – Ethics (3) o PGL 212 – Legal Writing (3) o PGL 213 – Civil Litigation I (3) o PGL 214 – Real Property I (3) o PGL 221 – Wills and Estates (3) o PGL 231 – Torts (3) o PGL 223 – Civil Litigation II (3) o PGL 224 – Real Property II (3) o PGL 235 – Capstone (1)	KCTCS Family Law Certificate KCTCS Civil Litigation Certificate, Paralegal Technology Certificate and Paralegal Technology AAS

Note: these are model pathways. Each high school will have to develop its pathway based on the college's dual credit course offerings.

*Course pre-requisites have to be completed before a student can enroll in any PGL courses

PHARMACY TECHNOLOGY
Secondary-Postsecondary Pathway
Effective date: 2019-2020

Postsecondary Institution: KCTCS (Institutions TBD)
Secondary School:

Pathway: Pharmacy Technology Diploma
College Credit: 15-30 hours in HS out of 39-46 credits

Grade	General Education	Technical Core	Diploma, Certification(s), Certificate(s), Degree(s)
9	o English I (1) o Algebra I (1) o Biology I (1) o Social Studies (1) o Physical Education (.5) o Health (.5)	o CIT 105 – Introduction to Computers (3)	
10	o English II (1) o Geometry (1) o Science Course (1) o Social Studies (1) o Visual and Performing Arts (1)	o MIT 103 – Medical Office Terminology (3) **OR** AHS 115 – Medical Terminology (3) **OR** CLA 131 – Medical Terminology from Greek & Latin (3)	
11	o COM 181 – Oral Communications (3) **OR** COM 252 – Intro to Interpersonal Communications (3) o Mathematics (1) o Science Course (1) o Social Studies (1)	o PHA 110 – Pharmacy Procedures & Skills (6) o PHA 145 – Pharmaceutical Calculators (3)	
12	o English I (1) o Mathematics (1) o BIO 135 – Basic Anatomy & Physiology with Lab (4) o Social Studies (1)	o PHA 136 – Pharmacology (3) o PHA 150 – Pharmacy Experience (3) *	KCTCS Entry Level Pharmacy Technology Certificate High School Diploma KWIB Approved Industry Certification(s)
13		Fall: o PHA 200 – Admixtures for IV Therapy (3) o PHA 205 – Admixture Preparations (1) o PHA 236 – Pharmacology II (3) o PHA 240 – Pharmacy Technology Career Planning (3) o PHA 250 – Pharmacy Experience II (3) o CPR 100 – CPR for Professionals (0-3)	KCTCS Advanced Level Pharmacy Technology Diploma

* Students have to be 18 years old to be able to attend the PHA 250 Pharmacy Experience course

Grade	General Education	Technical Core	Diploma, Certification(s), Certificate(s), Degree(s)
9	o English I (1) o Algebra I (1) o Biology I (1) o Social Studies (1) o Physical Education (.5) o Health (.5)		
10	o English II (1) o Geometry (1) o Science Course (1) o Social Studies (1) o Visual and Performing Arts (1)		

11	o COM 181 – Oral Communications (3) **OR**
	   COM 252 – Intro to Interpersonal Communications (3)
	o Mathematics (1)
	o Science Course (1)
	o Social Studies (1)
		o CIT 105 – Introduction to Computers (3)
		o MIT 103 – Medical Office Terminology (3) **OR**
		   AHS 115 – Medical Terminology (3) **OR**
		   CLA 131 – Medical Terminology from Greek & Latin (3)	

12	o English I (1) o Mathematics (1) o BIO 135 – Basic Anatomy & Physiology with Lab (4) o Social Studies (1)	o PHA 110 – Pharmacy Procedures & Skills (6) o PHA 145 – Pharmaceutical Calculators (3)	High School Diploma KWIB Approved Industry Certification(s)
13		Fall: o PHA 136 – Pharmacology – (3) o PHA 150 – Pharmacy Experience (3) * o PHA 200 – Admixtures for IV Therapy (3) o PHA 205 – Admixture Preparations (1) o PHA 236 – Pharmacology II (3) Spring: o PHA 240 – Pharmacy Technology Career Planning (3) o PHA 250 – Pharmacy Experience II (3) o CPR 100 – CPR for Professionals (0-3)	KCTCS Entry Level Pharmacy Technology Certificate KCTCS Advanced Level Pharmacy Technology Diploma

* Students have to be 18 years old to be able to attend the PHA 250 Pharmacy Experience course

Note: these are model pathways. Each high school will have to develop its pathway based on the college's dual credit course offerings.

PLUMBING TECHNOLOGY
Secondary-Postsecondary Pathway
Effective date: 2019-2020

Postsecondary Institution: KCTCS (Institutions TBD) **Pathway:** Plumbing Technology
Secondary School: **College Credit:** 35-47 hours in HS out of 60-63 credits

Grade	General Education	Technical Core	Diploma, Certification(s), Certificate(s), Degree(s)
9	o English I (1) o Algebra I (1) o Biology I (1) o Social Studies (1) o Physical Education (.5) o Health (.5)	o CIT 105 – Introduction to Computers (3) o BRX 220 – Blueprint Reading for Construction (3)	
10	o English II (1) o Geometry (1) o Science Course (1) o Social Studies (1) o Visual and Performing Arts (1)	o ISX 100 – Industrial Safety (3) **OR** ISX 101 – Introduction to Industrial Safety (3) o WPP 200 – Workplace Principles (3)	
11	o COM 181 – Oral Communications (3) **OR** COM 252 – Intro to Interpersonal Communications (3) o Mathematics (1) o Science Course (1) o HIS 108 – History of the US Through 1865 (3) **OR** HIS 109 – History of the US Since 1865 (3)	o PLB 150/151 – Plumbing, Introduction to the Trade and Basic Plumbing Skills (6) o BAS 120 – Personal Finance (3)	KCTCS Plumber Helper Certificate
12	o ENG 101 – Writing I (3) o MAT 105 – Business Mathematics (3) or higher o BIO 112/113 – Intro to Biology & Lab (4) o PSY 110 – General Psychology (3)	o PLB 250/251 – Plumbing Appliances & Fixtures & Plumbing & Water Heaters (5) * o PLB 262 – Backflow Prevention (3)	KCTCS Finish Plumber Certificate KCTCS Certified Backflow Tester** High School Diploma
13		Fall: o PLB 160 – Plumbing Systems, WWV & Water (3) o PLB 161 – Rough-In Plumbing Fixtures (2) o PLB 260/261 – Service & Advanced Plumbing Lab (4) o PLB 270 – License Preparation for Journeyman Exam (3) o PLB 298 – Plumbing Practicum/Repairs & Maintenance (4) **OR** PLB 299 – Plumbing Cooperative Education (4)	KCTCS Plumber Mechanic Diploma & Plumbing Technology AAS

Grade	General Education	Technical Core	Diploma, Certification(s), Certificate(s), Degree(s)
9	o English I (1) o Algebra I (1) o Biology I (1) o Social Studies (1) o Physical Education (.5) o Health (.5)		
10	o English II (1) o Geometry (1) o Science Course (1) o Social Studies (1) o Visual and Performing Arts (1)		
11	o COM 181 – Oral Communications (3) **OR** COM 252 – Intro to Interpersonal Communications (3) o Mathematics (1) o Science Course (1) o HIS 108 – History of the US Through 1865 (3) **OR** HIS 109 – History of the US Since 1865 (3)	o PLB 150/151 – Plumbing, Introduction to the Trade and Basic Plumbing Skills (6) o ISX 100 – Industrial Safety (3) **OR** ISX 101 – Introduction to Industrial Safety (3)	KCTCS Plumber Helper Certificate
12	o ENG 101 – Writing I (3) o MAT 105 – Business Mathematics (3) or higher o BIO 112/113 – Intro to Biology & Lab (4) o PSY 110 – General Psychology (3)	o PLB 250/251 – Plumbing Appliances & Fixtures & Plumbing* & Water Heaters (5) o PLB 262 – Backflow Prevention (3)	KCTCS Finish Plumber Certificate KCTCS Certified Backflow Tester** High School Diploma
13		Fall: o WPP 200 – Workplace Principles (3) o BAS 120 – Personal Finance (3) o CIT 105 – Introduction to Computers (3) o BRX 220 – Blueprint Reading for Construction (3) o PLB 160 – Plumbing Systems, WWV & Water (3) Spring: o PLB 161 – Rough-In Plumbing Fixtures (2) o PLB 260/261 – Service & Advanced Plumbing Lab (4) o PLB 270 – License Preparation for Journeyman Exam (3) o PLB 298 – Plumbing Practicum/Repairs & Maintenance (4) **OR** o PLB 299 – Plumbing Cooperative Education (4)	KCTCS Plumber Mechanic Diploma & Plumbing Technology AAS

Course must be taken at KCTCS college

**Requires that the graduate pass a written test with 80% accuracy and a 3-part performance test*

Note: these are model pathways. Each high school will have to develop its pathway based on the college's dual credit course offerings.

WELDING TECHNOLOGY

Secondary-Postsecondary Pathway
Effective date: 2019-2020

Postsecondary Institution: KCTCS (Institutions TBD)   **Pathway:** Welding Technology
Secondary School: **College Credit:** 36-53 Hours in HS out of 60-68

Grade	General Education	Technical Core	Diploma, Certification(s), Certificate(s), Degree(s)
9	o English I (1) o Algebra I (1) o Biology I (1) o Social Studies (1) o Physical Education (.5) o Health (.5) o World Language (1)	o WLD 100/101 – Oxy-Fuel Systems & Lab (4) o WLD 110/111 – Cutting Processes & Lab (5)	KCTCS Gas Welder Certificate KCTCS ARC Cutter Certificate
10	o English II (1) o Geometry (1) o Science Course (1) o Social Studies (1) o Visual and Performing Arts (1) o World Language (1)	o WLD 120/121 – Shielded Metal Arc Welding & Lab (5) o WLD 123 – Shielded Metal Arc Welding Groove with Backing Lab (3)	KCTCS Welder Helper Certificate
11	o COM 181 – Oral Communications (3) **OR** COM 252 – Intro to Interpersonal Communications (3) o Mathematics (1) o HIS 108 – History of the US Through 1865 (3) **OR** HIS 109 – History of the US Since 1865 o Science Course (1)	o WLD 140/141 – Gas Metal Arc Welding & Lab (5) o WLD 143 – Gas Metal Arc Welding Groove Lab (3)	
12	o ENG 101 – Writing I (3) o MAT 110 – Applied Mathematics (3) or higher o PHY 171 – Applied Physics (4) o PSY 110 – General Psychology (3) **OR** SOC 101 – Introduction to Sociology (3)	o WLD 130/131 – Gas Tungsten Arc Welding & Lab (5) o WLD 133 – Gas Tungsten Arc Welding Groove Lab (3)	KCTCS Production Line Welder High School Diploma
13		Fall: o WLD 170/171 – Blueprint Reading for Welding & Lab (5) o WLD 220/221 –Welding Certification & Lab (5) o Elective (3) o Digital Literacy (0-3) o WLD 298 – Welding Practicum (1-4) **OR** WLD 299 – Cooperative Work Experience	KCTCS Combination Welder Diploma KCTCS Welding Technology AAS

Grade	General Education	Technical Core	Diploma, Certification(s), Certificate(s), Degree(s)
9	o English I (1) o Algebra I (1) o Biology I (1) o Social Studies (1) o Physical Education (.5) o Health (.5) o World Language (1)		
10	o English II (1) o Geometry (1) o Science Course (1) o Social Studies (1) o Visual and Performing Arts (1) o World Language (1)		
11	o COM 181 – Oral Communications (3) **OR** COM 252 – Intro to Interpersonal Communications (3) o Mathematics (1) o HIS 108 – History of the US Through 1865 (3) **OR** HIS 109 – History of the US Since 1865 o Science Course (1)	o WLD 100/101 – Oxy-Fuel Systems & Lab (4) o WLD 110/111 – Cutting Processes & Lab (5)	KCTCS Gas Welder Certificate KCTCS ARC Cutter Certificate
12	o ENG 101 – Writing I (3) o MAT 110 – Applied Mathematics (3) or higher o PHY 171 – Applied Physics (4) o PSY 110 – General Psychology (3) **OR** SOC 101 – Introduction to Sociology (3)	o WLD 120/121 – Shielded Metal Arc Welding & Lab (5) o WLD 123 – Shielded Metal Arc Welding Groove with Backing Lab (3)	KCTCS Welder Helper Certificate High School Diploma
13		Fall: o Digital Literacy (0-3) o WLD 140/141 – Gas Metal Arc Welding & Lab (5) o WLD 143 – Gas Metal Arc Welding Groove Lab (3) o WLD 130/131 – Gas Tungsten Arc Welding & Lab (5) Spring: o WLD 133 – Gas Tungsten Arc Welding Groove Lab (3) o WLD 170/171 – Blueprint Reading for Welding & Lab (5) o Elective (3) o WLD 220/221 –Welding Certification & Lab (5) o WLD 298 – Welding Practicum (1-4) **OR** WLD 299 – Cooperative Work Experience	KCTCS Production Line Welder KCTCS Combination Welder Diploma KCTCS Welding Technology AAS

Note: these are model pathways. Each high school will have to develop its pathway based on the college's dual credit course offerings.