CAREER CLUSTER GUIDANCE HANDBOOK

Kansas Career & Technical Education



Kansas Career Cluster Pathway Design Models

Effective School Year 2018-2019





KANSAS CAREER & TECHNICAL EDUCATION

Kansas' secondary Career & Technical Education (CTE) Division has adopted the National Career Clusters model of 16 career clusters and has developed 35 pathways within these clusters. Technological advances and global competition have transformed the nature of work. Tomorrow's jobs will require more knowledge, better skills, and highly flexible workers who continually update their knowledge and skills. Our goal is to provide students with relevant contexts for learning through pathways to college and career readiness. Career Clusters link what students learn in school to the knowledge and skills they need for success in postsecondary education and careers.

Career cluster pathways are designed to provide a smooth transition from high school to postsecondary education (technical colleges, community colleges and universities), apprenticeship opportunities, the military, and/or the workplace. Kansas stakeholders from education, business and industry developed the courses that enable this transition. Kansas has developed 35 pathways that address the need for high skill, high wage, and high demand careers in the 21st Century.

The following pages present the Career Cluster Pathways developed for local education agency implementation for school year 2018-2019. For assistance with the Authenticated Application Pathways System contact the Pathways Helpdesk at: pathwayshelpdesk@ksde.org.

Middle School level course codes are available for introductory level courses in some pathways. Please check with the KSDE Consultant responsible for that Pathway for details. Otherwise use high school codes for introductory courses taught at the Middle School level.

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The Kansas State Department of Education does not discriminate on the basis of race, color, national origin, sex, disability, or age in its programs and activities. The following person has been designated to handle inquiries regarding the non-discrimination policies: KSDE General Counsel, KSDE, Landon State Office Building, 900 SW Jackson St., Ste. 102, Topeka, KS 66612; 785-296-3201



Kansas State Department of Education Landon State Office Building 900 SW Jackson St., Suite 600 Topeka, Kansas 66612-1212 www.ksde.org



KANSAS COMMISSIONER OF EDUCATION Dr. Randy Watson (785) 296-3202



DIVISION OF LEARNING SERVICES Brad Neuenswander Deputy Commissioner (785) 296-2304



DIVISION OF FISCAL AND ADMINISTRATIVE SERVICES Dale M. Dennis Deputy Commissioner (785) 296-3871

The Kansas State Department of Education does not discriminate on the basis of race, color, national origin, sex, disability or age in its programs and activities and provides equal access to the Boy Scouts and other designated youth groups. The following person has been designated to handle inquiries regarding the non-discrimination policies: KSDE General Counsel, Office of General Counsel, KSDE, Landon State Office Building, 900 SW Jackson, Suite 102, Topeka, KS 66612-1212, (785) 296-3201

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Kansas CTE Career Pathways Infographics

The following three pages contain the new Kansas CTE Career Pathways infographics.

Page 1: Elementary Version – shows the seven Career Fields

Page 2: Middle School Version – shows the seven Career Fields and the 16 Career Clusters

Page 3: Secondary Version - shows the seven Career Fields, the 16 Career Clusters, and the 35 Pathways of study

The goal of KSDE's CTE Team is to make these infographics interactive so that at each level teachers, students and parents will be able to click on a field, cluster, or pathway to learn more about the opportunities for careers and career training in Kansas.

Look for this exciting opportunity coming soon to the KSDE website!

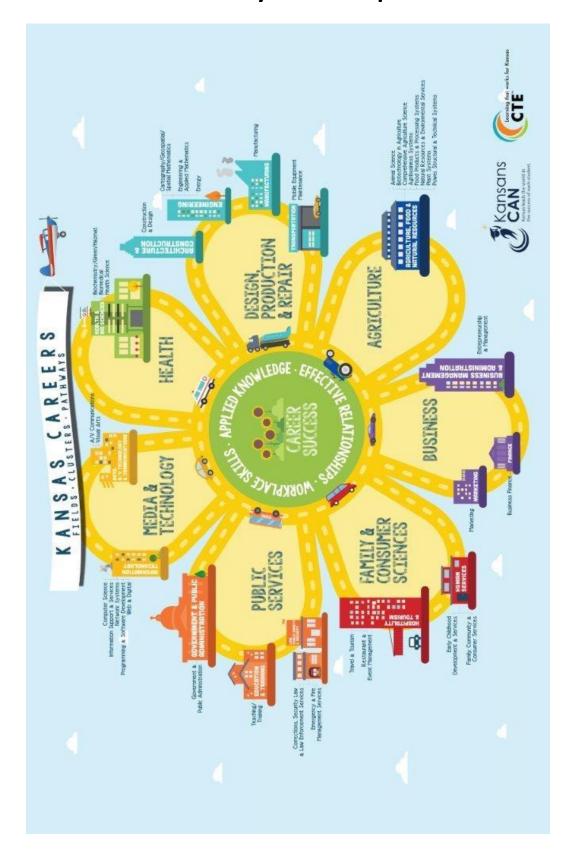
Elementary Level Graphic



Middle School Level Graphic



Secondary Level Graphic



KSDE Secondary-Level CTE Contacts - 2017-18

CTE ASSISTANT DIRECTOR

- Stacy Smith (<u>slsmith@ksde.org</u>)
- 785-296-4351
- Tierney Kirtdoll, Interim Senior Asst.

(tkirtdoll@ksde.org) 785-296-3142

CLUSTERS / PATHWAYS

Agriculture, Food, and Natural Resources

All Pathways

Kurt Dillon (kdillon@ksde.org) 785-296-3956

Architecture & Construction Manufacturing Transportation, Distribution & Logistics Law, Public Safety, & Security Engineering

All Pathways

Peggy Torrens (ptorrens@ksde.org) 785-296-2221

Arts, A/V Technology, and Communications Information Technology

- AV Communications
- All Information Tech. Pathways
 Stacy Smith (<u>slsmith@ksde.org</u>) 785-296-4351
- Visual Arts
 Gayla Randel (grandel@ksde.org) 785-296-4912

Business Management & Administration Finance

Marketing

All Pathways

Natalie Clark (ndclark@ksde.org) 785-296-4916

Education and Training Human Services Hospitality & Tourism

All Pathways

Gayla Randel (grandel@ksde.org) 785-296-4912

Government and Public Administration

Pathway

Don Gifford (dgifford@ksde.org) 785-296-3892

Health Science

All Pathways

Wendy Coates (wcoates@ksde.org) 785-296-3860

CTSO's

• BPA

State Advisor — Amber McNew (amcnew@usd266.com) 313-462-8000

DECA

State Advisor — Scott Jones — Ft. Hays St. University (siones@kansasdeca.org) 785-628-4040

FBLA

State Advisor - Connie Lindell (cnlindell@aol.com) 785-760-1038

FCCLA

State Advisor - Pam Lamb (plamb@ksde.org) 785-296-2164

• FFA

State Advisor – Kurt Dillon (kdillon@ksde.org) 785-296-3956

Executive Secretary- Mary Kane (mrkane@k-state.edu) 785-532-6424

HOSA

State Advisor – Seth Nutt snutt@kumc.edu) 620-235-4040

SkillsUSA

State Advisor -Becky Warren (bwarren@ksde.org) 620-820-9367

• TSA

State Advisor -Contact Stacy Smith (slsmith@ksde.org)

CARL D. PERKINS

Lead:

Kathleen Mercer (ktmercer@ksde.org) 785-296-2307

• Office of Civil Rights Visits:

Wendy Coates (wcoates@ksde.org) 785-296-3860

- Perkins Reserve Grant Management: Contact appropriate Pathway Consultant
- Allocations / Performance Indicators:
 Angie Feyh (afeyh@ksde.org) 785-296-4908

OTHER AREAS

Pathways Authenticated Application Assistance

Pathwayshelpdesk@ksde.org

K-12 Career Development

Kent Reed (kreed@ksde.org) 785-296-8109

KS Course Code Mgmt. System (KCCMS)

kccms@ksde.org

• Teacher Licensure / EDCS

Susan Helbert (shelbert@ksde.org) 785-296-2289 Lori Adams (ladams@ksde.org) -785-296-3835

KIDS / STCO

Kids@ksde.org

CLUSTER/PATHWAY C.I.P. CODES

Agriculture, Food & Natural Res	ources	Health Science	
Agribusiness Systems*	01.0101	Biochemistry*	14.1401
Comprehensive Agriculture Science	01.9999	Biomedical*	14.0501
Animal Science*	01.0901	Health Science**	51.9999
Biotechnology in Agriculture*	26.1201		
Food Products & Processing Systems*	01.0401	Hospitality & Tourism	•
Natural Res. & Environmental Systems*	03.0101	Restaurant & Event Management*	12.0504
Plant Systems*	01.1101	Travel & Tourism**	52.0901
Power, Structural & Technical Systems*	01.0201		
		Human Services	
Architecture & Construction		Early Childhood Development & Services**	19.0709
Construction & Design*	46.0000	Family, Community & Consumer Services	19.0799
Arts, A/V Technology & Commu	nications	Information Technology	
AV Communications *	09.0702	Information Support & Services*	11.0301
Visual Arts	50.0499	Network Systems*	11.0901
		Programming & Software Development*	11.0201
Business Management & Admin	istration	Web & Digital Communications 11.1004	
Business Entrepreneurship & Management*	52.0799		
Education & Training		Law, Public Safety, Corrections &	Security
Teaching /Training**	13.0101	Corrections, Security, Law, & Law 43.0199 Enforcement Services*	
		Emergency & Fire Management Services*	43.0299
Engineering			
Cartography/Geospatial/Spatial Math*	15.1102	Manufacturing	1
Engineering & Applied Mathematics*	14.0101	Manufacturing*	48.0000
Energy*	17.2071		
		Marketing	
Finance		Marketing	52.1402
Business Finance**	52.0801		
		Transportation, Distribution & Logistics	
Government & Public Administr	ation	Mobile Equipment Maintenance*	47.9999
Government & Public Administration*	44.0401		
/*		/**	
(* = non-traditional female)		(** = non-traditional male)	

Agribusiness Systems – CIP Code 01.0101

Approved Pathway:

- 1) Includes minimum of three secondary-level credits.
- Includes a workbased element.
- Consists of a sequence: Introductory-level, Technical-level, and Application-level courses.
- 4) Supporting documentation includes Articulation Agreement(s), Certification,
- Study.
 5) Technical-level and Application-level courses receive .5 state-weighted funding in an approved CTE

and a Program of

Improvement Plan

Program

INTRODUCTORY LEVEL

OR.	*Exploratory Agriculture	
	68001	
	1 credit	

18001

1 credit

TECHNICAL LEVEL

*Intro to Agriculture

*Agribusiness	Agriscience
18201	18002
1 credit	1 credit

APPLICATION LEVEL

Ag Entrepreneurship	Research in Ag.	*Applications in Agribusiness
18202	18206	18220
1 credit	1 credit	1 credit
Internship	Advanced Internship	Ag Leadership & Comm.
18048	18049	18203
1 credit	1 credit	1 credit

Approved Pathway:

- 1) Includes minimum of three secondary-level credits.
- 2) Includes a work-based element.3) Consists of a
- sequence:
 Introductory-level,
 Technical-level, and
 Application-level
 courses.
- 4) Supporting
 documentation
 includes Articulation
 Agreement(s),
 Certification,
 Program
 Improvement Plan,
 and a Program of
- 5) Technical-level and Application-level courses receive .5 state-weighted funding in an approved CTE nathway

Animal Science – CIP Code 01.0901

INTRODUCTORY LEVEL

OR	*Exploratory Agriculture
	68001
	1 credit

*Intro to Agriculture

18001

1 credit

TECHNICAL LEVEL

*Animal Science	Agriscience
18101	18002
1 credit	1 credit

APPLICATION LEVEL

ONE OF THE FOI	LLOWING	FOUR COL	ONE OF THE FOLLOWING FOUR COURSES IS REQUIRED		
Adv. Animal Science	18103 1 credi	1 credit	Small Animal Care	18102	1 credi
Equine Science	18104 1 credi	1 credit	Animal Health/Vet Tech	18105	1 credi
Research in Ag	18206	1 credit	Ag Leadership & Comm.	18203	1 credi
Ag Entrepreneurship	18202	1 credit	Advanced Internship	18049	1 credi
Ag Business	18201	1 credit	Internship	18048	1 credi

Biotechnology in Agriculture - CIP Code 26.1201

Approved Pathway:

- Includes minimum of three secondarylevel credits.
 Includes a work-
- Includes a workbased element.
- Consists of a sequence: Introductory-level, Technical-level, and Application-level
- courses.
 4) Supporting documentation includes Articulation Agreement(s), Certification, Program
- 5) Technical-level and Application-level courses receive .5 state-weighted funding in an approved CTE

Study.

and a Program of

Improvement Plan,

INTRODUCTORY LEVEL

OR	*Exploratory Agriculture
	68001
	1 credit

*Intro to Agriculture

18001

1 credit

TECHNICAL LEVEL

Ag Food Science	Plant & Soil Science	*Biotechnology in Ag
18305	18058	18308
18305 1 credit	1 credit	1 credit
Animal Science	Horticulture	Agriscience
18101	18052	18002
1 credit	1 credit	1 credit

APPLICATION LEVEL

	Ag Entrepreneurship	Ag Business	*App. In Biotechnolog
18206	ship 18202	18201	nology 18320
		1 credit	
	Internship		Ag Leadership & Comm.
	18048	18049	18203
	1 credit	1 credit	1 credit

Approved Pathway:

 Includes minimum of three secondarylevel credits.
 Includes a workbased element.

 ω

Consists of a

- sequence:
 Introductory-level,
 Technical-level, and
 Application-level
 courses.
- 4) Supporting
 documentation
 includes Articulation
 Agreement(s),
 Certification,
 Program
 Improvement Plan,
 and a Program of
 Study.
- 5) Technical-level and Application-level courses receive .5 state-weighted funding in an approved CTE pathway.

Comprehensive Agricultural Science - CIP Code 01.9999

INTRODUCTORY LEVEL

*Exploratory Agriculture 68001 1 credit **OR** *Intro to Agriculture 18001 1 credit

TECHNICAL LEVEL

*Must select at least two of the courses below:

Biotechnology in Ag.	Plant & Soil Science	Animal Science	Agriscience
18308	18058	18101	18002
1 credit	1 credit	1 credit	1 credit
Ag. Food Science	Horticulture	Natural Resource Management	Plant & Animal Science
18305 1 credit	18052 1 credit	18504 1 credit	18301 1 credit

APPLICATION LEVEL

*Must select at least one of the courses below:

Adv Plant & Animal Science 18302 1 credit	Internship	Research in Ag.	Ag Entrepreneurship
18302	18048	18206	18202
1 credit	18048 1 credit	18206 1 credit	18202 1 credit
Agribusiness	Advanced Internship	Communications	Ag Leadership &
18201 1 credit	18049 1 credit	18203 1 credit	

Food Products & Processing Systems - CIP Code 01.0401

Approved Pathway:

- Includes minimum of three secondarylevel credits.
 Includes a work-
- based element.
 3) Consists of a
- sequence:
 Introductory-level,
 Technical-level, and
 Application-level
 courses.
- 4) Supporting
 documentation
 includes Articulation
 Agreement(s),
 Certification,
 Program
 Improvement Plan,
 and a Program of
 Study.
- 5) Technical-level and Application-level courses receive .5 state-weighted funding in an approved CTE pathway.

INTRODUCTORY LEVEL

OR	*Exploratory Agriculture
	68001
	1 credit

*Intro to Agriculture 18001 1 credit

TECHNICAL LEVEL

*Food Science	OR	*Ag Food Science	Agriscience
22203		18305	18002
1 credit		1 credit	1 credit
	Horticulture	Plant & Soil Science	Animal Science
	18052	18058	18101
	1 credit	1 credit	1 credit

APPLICATION LEVEL

Internship	Ag Entrepreneurship	Research in Ag	*Advanced Food Science
18048	18202	18206	18317
18048 1 credit	18202 1 credit	18206 1 credit	18317 1 credit
	Ag Business	Advanced Internship	Ag Leadership & Communications
	18201	18049	18203
	1 credit	1 credit	1 credit

Approved Pathway:

- Includes minimum of three secondarylevel credits.
 Includes a workbased element.
- Consists of a sequence: Introductory-level, Technical-level, and Application-level

courses.

- 4) Supporting documentation includes Articulation Agreement(s), Certification, Program Improvement Plan, and a Program of Study.
- 5) Technical-level and Application-level courses receive .5 state-weighted funding in an approved CTE

Natural Resources & Environmental Systems – CIP Code 03.0101

INTRODUCTORY LEVEL

*Intro to Agriculture	OR	*Exploratory Agriculture
18001		68001
1 credit		1 credit

TECHNICAL LEVEL

*Natural Resources Management	Agriscience
18504	18002
1 credit	1 credit

APPLICATION LEVEL

Ag Business	18201	18201 1 credit	Ag Leadership & Comm.	18203	1 credit
Research in Ag.	18206	1 credit		18049	
Ag Entrepreneurship	18202	1 credit	Internship	18048	
*Environmental Resources & 37506 1 credit	37506	1 credit			
Wildlife Science					

Approved Pathway:

- Includes minimum of three secondary-level credits.
 Includes a work-based
- Includes a work-based element.
- Consists of a sequence: Introductory-level, Technical-level, and Application-level courses.
- 4) Supporting
 documentation includes
 Articulation
 Agreement(s),
 Certification, Program
 Improvement Plan, and
 Company of Study

 Agreement Study

 Agreement Plan, and
 Agreement Plan, and
- a Program of Study.
 5) Technical-level and Application-level courses receive .5 state-weighted funding in an approved CTE

Plant Systems – CIP Code 01.1101

INTRODUCTORYLEVEL

*Exploratory Agriculture 68001 1 credit
*Intro to Agriculture 18001 1 credit

TECHNICAL LEVEL

Agriscience *Plant & Soil Science 18002 18058 1 credit 1 credit *Horticulture 18052 1 credit

		18048 1 credit	18048	Internship
n 18049 1 credit	Advanced Internship	18202 1 credit	18202	Ad Entrepreneurship
18203 1 credit	Communications	18206 1 credit	18206	Research in Ag.
	Ag Leadership &	18201 1 credit	18201	Ag Business
18057 1 credit	Management	1 credit	ent 18081	*Crop & Range Management 18081 1 credit
nhouse	*Floriculture & Greenhouse	1 credit	re 18071	*Applications in Horticulture 18071 1 credit

^{*} A minimum of one starred course from each level is required for pathway approval.

Approved Pathway:

- Includes minimum of three secondary-level credits.
 Includes a work-based element.
- Consists of a sequence: Introductory-level, Technical-level, and Application-level courses.
- 4) Supporting
 documentation
 includes Articulation
 Agreement(s),
 Certification,
 Program
 Improvement Plan,
 and a Program of
 Study
- 5) Technical-level and Application-level courses receive .5 state-weighted funding in an approved CTE pathway.

Power, Structural & Technical Systems-CIP Code 01.0201

INTRODUCTORY LEVEL

*Exploratory Agriculture 68001 1 credit
*Intro to Agriculture 18001 1 credit

TECHNICAL LEVEL

Ag Weiding I	Agriscience	
18404/3920/ 1 credit	18002 1 credit	
"Small Engines	*Ag Mechanics	
18410	18401	
T credit	1 credit	

Ag Entrepreneurship	*Adv. Ag Mechanics *Adv. Ag Power *Ag Fabrication Ag Leadership & Communications
18202	18402 18411 18409 18203
1 credit	1 credit 1 credit 1 credit 1 credit
Internship	*Ag Welding II *Ag Structures Ag Business Research in Ag. Advanced Internship
18048	18407/39208 18403 18201 18206 18049
1 credit	1 credit 1 credit 1 credit 1 credit 1 credit 1 credit

^{*} A minimum of one starred course from each level is required for pathway approval.

Architecture & Construction CAREER CLUSTER DESIGN

Construction & Design-CIP Code 46.0000

Approved Pathway:

- Includes minimum of three secondarylevel credits.
- 2) Includes a workbased element.3) Consists of a
- sequence:
 Introductory-level,
 Technical-level, and
 Application-level
 courses.
- 4) Supporting
 documentation
 includes Articulation
 Agreement(s),
 Certification,
 Program
 Improvement Plan,
 and a Program of
- Study.
 5) Technical-level and Application-level courses receive .5 state-weighted funding in an approved CTE pathway

INTRODUCTORY LEVEL

**Introduction to Industrial Technology 38001 .5 credit

Drafting 21102 .5 credit

TECHNICAL LEVEL

1 credit .5 credit	17007 17062	Woodworking Principles Skilled Mechanical Crafts	21103 1 credit	21103	Architecture Design
1 credit	17002	Carpentry	1 credit	21107	Drafting / CAD
		Construction Strand			Design Strand

requisites	** Required for Construction Strand *** 17007 & 38007 are Pre-	*Has a Pre-Requisite					Commercial & Ind. Interior Design	Residential Interior Design	Advanced Studies	Construction	Research & Design for Pre-	Design Strand
							38212	22212	38050	21109		
							.5 credit	.5 credit	.5 credit	1 credit		
***Advanced Materials Technology	*Pipefitting Technology	*Electrical & Security Systems	*Plumbing Technology	*HVAC Technology	*Sheet Metal	*Remodel & Building Maintenance	*Research & Design in Building Trades	*Sheet Metal & HVACR	Furniture & Cabinetry Fabrication	*Carpentry II		Construction Strand
38010	17061	17113	17058	17056	13205	17009	17005	38012	38007	38002		
1 credit	1 credit	.5 credit	.5 credit	.5 credit	.5 credit	.5 credit	1 credit	1 credit	1 credit	1 credit		

ARTS, A/V AND COMMUNICATION CAREER CLUSTER DESIGN

AV Communications Pathway - CIP Code 09.0702

Approved Pathway:

- 1) Includes minimum of three secondary-level credits.
- 2) Includes a workbased element.
- 3) Consists of a sequence: Introductory-level, Technical-level, and Application-level courses.
- 4) Supporting
 documentation
 includes Articulation
 Agreement(s),
 Certification,
 Program
 Improvement Plan,

and a Program of

Study.
5) Technical-level and Application-level courses receive .5 state-weighted funding in an approved CTE pathway.

INTRODUCTORY LEVEL

Computer Applications	Business Essentials
10004/60004	12050
1 credit	.5 credit

TECHNICAL LEVEL

1 credit	12164	Principles of Marketing
1 credit	05162/11154	Graphic Design
.5 credit	30102	Graphic Design Fundamentals
.5 credit	30105	Photo Imaging
.5 credit	30103	Audio/Video Production Fund
.5 credit	43115	Media and Public Relations
.5 credit	30104	Digital Media Technology
.5 credit	30100	*21st Century Journalism

Digital Media Design & Production	Video Production	Project Mgmt.& Resource Scheduling
30151	30150	21205
1 credit	1 credit	1 credit

^{*}Required for pathway approval.

ARTS, A/V AND COMMUNICATION CAREER CLUSTER DESIGN

Approved Pathway:

- Includes minimum of three secondary-level credits.
 Includes a work-
- based element.
- 3) Consists of a sequence: Introductory-level, Technical-level, and Application-level and Application-
- 4) Supporting documentation includes Articulation Agreement(s), Certification, Program Improvement Plan, and a
- Program of Study.
 5) Technical-level and Application-level courses receive .5 stateweighted funding in an approved CTE pathway.

Visual Arts Pathway - CIP Code 50.0499

(Fashion, Apparel and Interior Design (F.A.I.D.) Strands

INTRODUCTORY LEVEL

Intro to Fam & Cons. Sciences	**Drafting	Intro to Drawing	Career & Life Planning
45001	21102	30005	22207
1 credit	.5 credit	.5 credit	.5 credit

TECHNICAL LEVEL

(Must Select a strand at the division)

30110 30112	Entrepreneurship	F.A.I.D. Merchandising &	Interior Design (F.A.I.D.)	*Essentials of Fashion, Apparel &
	30112		30110	

Fashion & Apparel Design Strand

*Apparel Production II	*Apparel Production I	Fashion Trends
19203	19201	30111
19203 .5 credit	19201 .5 credit	30111 1 credit
Architecture Design	Residential Interior Design	*Interior Design I
21103	22212	19263
1 credit	.5 credit	.5 credit

Interior Design Strand

APPLICATION LEVEL

Fashion, Apparel & Interior Design

Career Connections	(F.A.I.D.) Studio
22275	30160
.5 credit	1 credit

^{*}Required for pathway approval per strand. **Recommended Intro course for Interior Design Strand. Cannot be the only Intro course offered.

ARTS, A/V AND COMMUNICATION CAREER CLUSTER DESIGN

Visual Arts Pathway - CIP Code 50.0499

(Graphic Design Strand)

Approved Pathway:

- 2) Includes minimum of Includes a workthree secondarylevel credits.
- ω Consists of a based element.
- courses. Application-level Technical-level, and Introductory-level, sequence:
- Supporting and a Program of Improvement Plan, Program Certification, Agreement(s), includes Articulation documentation
- 5) state-weighted courses receive .5 Application-level Technical-level and approved CTE funding in an Study.

INTRODUCTORY LEVEL

Computer Applications	Intro To Drawing
10004/60004	30005
1 credit	.5 credit

TECHNICAL LEVEL

Media Technology – Workplace Experience	Project Mgmt.& Resource Scheduling
10248	21205
1 credit	1 credit

^{*}Required for pathway approval.

BUSINESS MANAGEMENT & ADMINISTRATION CAREER CLUSTER DESIGN

Business Management & Entrepreneurship Pathway CIP Code 52.0799

Approved Pathway:

- Includes
 minimum of three
 secondary-level
 credits.
- 2) Includes a workbased element.
- 3) Consists of a sequence: Introductory-level, Technical-level, and Application-level courses.
- 4) Supporting documentation includes Articulation Agreement(s), Certification, Program Improvement Plan, and a Program of
- 5) Technical-level and Application-level courses receive .5 state-weighted funding in an approved CTE pathway.

Study.

INTRODUCTORY LEVEL

*Business Essentials

12050** .5 credit

TECHNICAL LEVEL

*Entrepreneurship 12053 .5 credit

*Business Management 12052 .5 credit

*Business Communications 12009 .5 credit

(Optional Technical Courses) Supportive Business & Entrepreneurship Technical	ical Course repreneurs	es) ship Technical	(Optional Technical Courses) Supportive Entrepreneurship Technical	chnical C epreneur	ourses) ship Technical
Business Economics	12105	.5 credit	Web Page Design	10201	1 credit
Accounting	12104	1 credit	Internet Marketing	12162	1 credit
Business Law	12054	.5 credit	Woodworking Principles	17007	1 credit
Principles of Marketing	12164	1 credit	Drafting/CAD	21107	1 credit
IB Business & Management 12059	12059	1 credit	Ag Welding I	18404	1 credit
			Production Welding	39207	1 credit
			Remodel & Bldg. Maint.	17009	.5 credit
			Residential Carpentry	17002	1 credit
			Culinary Essentials	16052	.5 credit
			Found. Early Childhood	19052	1 credit
			Engineering Design & Dev. 21007	21007	1 credit
			Con & Personal Finance	22210	.5 credit

APPLICATION LEVEL

*Applied Business Development 32200 1 credit

^{*} Required for pathway approval **Business Essentials 12050 may be integrated with Computer Applications 10004

EDUCATION AND TRAINING CAREER CLUSTER DESIGN

Teaching/Training Pathway - CIP Code 13.0101

Approved Pathway:

- Includes minimum of three secondary-level credits.
- Includes a workbased element.
- 3) Consists of a sequence: Introductory-level, Technical-level, and Application-level courses.
- 4) Supporting
 documentation
 includes Articulation
 Agreement(s),
 Certification,
 Program
 Improvement Plan,

and a Program of

5) Technical-level and Application-level courses receive .5 state-weighted funding in an approved CTE

INTRODUCTORY LEVEL

Career and Life Planning 22207 .5 credit Intro to Family & Consumer Sciences 45001 1 credit

TECHNICAL LEVEL

Family Studies	Teaching Observation	OR * Human Growth & Development B	*Human Growth & Development A	*Teaching as a Career
22208**	42251	45014** 1 credit	45004** .5 credit	19151
22208** .5 credit	1 credit	1 credit	.5 credit	1 credit

Educational Trainer	Teaching Internship
10260	19152
1 credit	1 credit

^{*}Required for pathway approval.

^{**}Alternative course (19051) may be allowed with prior approval

ENGINEERING CAREER CLUSTER DESIGN

Approved Pathway:

- Includes minimum of three secondarylevel credits.
 Includes a workbased element.
 Consists of a
- 3) Consists of a sequence: Introductory-level, Technical-level, and Application-level courses.
- 4) Supporting documentation includes Articulation Agreement(s), Certification, Program Improvement Plan, and a Program of Study.
- 5) Technical-level and Application-level courses receive .5 state-weighted funding in an approved CTE pathway.

Cartography/Geospatial/Spatial Mathematics Pathway - CIP Code 15.1102

GIS Spatial Applications Civil Engineering or Civil Eng. & Architecture Aerospace Engineering Particular Topics in Engineering		Meteorology GIS Technology Aerospace Technology	Earth Science or ✓ Earth Space Science ✓ Computing Systems (8-9) Computer Applications (8-9) Physical Geography
			03001 53008/03008 10002/60002 10004/60004 03007
21112 21011 21012 21013 21013 21015	APPLI	03006 21058 21055	TRODUC 1 credit 1 credit 1 credit 1 credit 1 credit 1 credit
1 credit 1 credit 1 credit 1 credit 1 credit	CATIO	1 credit 1 credit	JCTOR dit dit dit dit dit
Emerging Technologies in STE Project Management and Resource Scheduling Workplace Experience	APPLICATION LEVEL	1 credit Animation 1 credit Robotics 1 credit	INTRODUCTORY LEVEL 1 1 credit Engineering Appl. (8-9) 1 1 credit Engineering Tech. (8-9) 1 1 credit Principles of Tech. (8-9) 1 1 credit Pre-Engineering Tech (8-9) 1 1 credit TECHNICAL LEVEL
logies in STEM ent : Scheduling ence			
21053 21205 21205 21048		10210 21009	21002/71002 21003/71003 53153/03153 21001
1 credit 1 credit 1 credit		1 credit 1 credit	1 credit 1 credit 1 credit 1 credit

✓Course is eligible for Regents Qualified Admissions – Natural Science

ENGINEERING CAREER CLUSTER DESIGN

Energy Pathway – CIP Code 17.2071

Approved Pathway:

- 2) Includes a work-1) Includes minimum of based element. level credits. three secondary-
- 3) Consists of a sequence: courses. Application-level Introductory-level, Technical-level, and
- 4 Supporting and a Program of documentation Program Certification, includes Articulation Improvement Plan, Agreement(s),

5) approved CTE state-weighted Technical-level and courses receive .5 Application-level funding in an

INTRODUCTORY LEVEL

		TECHNICAL LEVEL	ТЕСН		
.5 credit	21108	Blueprint Reading	1 credit	21003/71003 1 credi	Engineering Tech. (8-9)
1 credi	10004/60004	Computer Appl. (8-9)	1 credit	21002/71002 1 credi	Engineering Appl. (8-9)
1 credi	10002/60002	Computing Systems (8-9)	1 credit	21001/71001 1 credi	Pre-Engineering Tech. (8-9)
			1 credit	53153/03153 1 credi	Principles of Tech. (8-9)

*Energy Industry Fundamentals *Required for Pathway	Wind Energy	Electricity/Electronics	Alternative Energy	Energy/Power	Robotics	Engineering Design	Prin. Of Engineering
41105	21060	17108	18506	20101	21009	21006	21004
41105 1 credit	1 credit	1 credit	1 credit	1 credit	1 credit	1 credit	1 credit
Blueprint Reading	Advanced Production	Meteorology	and Assessment	Technical Innovation	Laser/Fiber Optics	Foundations of Electronics	Engineering-Comprehensive
39108		03006	21054		21057	21201	21005
.5 credit		1 credit	1 credit		1 credit	1 credit	1 credit

Workplace Experience	and Operation	Wind Turbine Construction	Digital Electronics	Emerging Technologies in STEM
21048	21061		21008	21053
21048 1 credit	21061 1 credit		21008 1 credit	21053 1 credit
& Resource Scheduling	Project Management	Eng. Design & Development	Particular Topics in Engineering	Materials Science & Engineering
21205		21007	21015	21252
1 credit		1 credit	1 credit	1 credit

ENGINEERING CAREER CLUSTER DESIGN

Engineering & Applied Mathematics Pathway - CIP Code 14.0101

INTRODUCTORY LEVEL

Blueprin	Compute	Computi	Principle
Blueprint Reading	Computer Appl. (8-9)	Computing Systems (8-9)	Principles of Tech. (8-9)
21108	10004/60004 1 credit	10002/60002 1 credit	53153/03153 1 credit
21108 .5 credit	1 credit	1 credit	1 credit
	Engineering Tech. (8-9)	Engineering Appl. (8-9)	Pre-Engineering Tech. (8-9)
	21003/71003	21002/71002	21001/71001
	1 credit	1 credit	1 credit

TECHNICAL LEVEL

Adv. Production Blueprint Reading 39108 .5 credit	Robotics	Engineering Design	Prin. Of Engineering
39108	21009	21006	21004
.5 credit	21009 1 credit	21006 1 credit	21004 1 credit
	Technical Innovation & Assessment	Foundations of Electronics	Engineering – Comprehensive
	21054	21201	21005
	1 credit	1 credit	1 credit

4) Supporting

and Application-

Technical-level, Introductory-level,

level courses.

3) Consists of a

sequence:

2) Includes a work-

based element.

secondary-level minimum of three

credits.

1) Includes

Approved Pathway:

APPLICATION LEVEL

Scheduling	Project Mgmt & Resource	Biotechnical Engineering	BioEngineering or	Manufacturing	Computer Integrated	Digital Electronics	Emerging Technologies
	21205 1 credit	21014 1 credit	21020 1 credit	21010 1 credit		21008 1 credit	21053 1 credit
	Workplace Experience	Eng. Design & Development	Particular Topics in Engineering	Aerospace Engineering	Civil Engineering	Civil Eng. & Architecture or	Materials Science & Engineering
	21048	21007	21015	21013	21011	21012	21252
	1 credit	1 credit	1 credit	1 credit	1 credit	1 credit	1 credit

5) Technical-level

and Application-

receive .5 state-

level courses

CTE pathway.

in an approved weighted funding Study.

Program of Plan, and a Program Certification, Agreement(s), Articulation includes documentation

Improvement

Approved Pathway:

- Includes minimum of three secondary-level credits.
- Includes a work-based element.
- 3) Consists of a sequence: Introductory-level, Technical-level, and Application-level courses.
- 4) Supporting
 documentation includes
 Articulation
 Agreement(s),
 Certification, Program
 Improvement Plan, and
 a Program of Study.
- 5) Technical-level and Application-level courses receive .5 state-weighted funding in an approved CTE

FINANCE CAREER CLUSTER DESIGN

Business Finance Pathway – CIP Code 52.0801

INTRODUCTORY LEVEL

*Business Essentials 12050

12050

.5 credit

TECHNICAL LEVEL

*Accounting 12104 1 credit
*Consumer & Personal Finance 22210 .5 credit

Supportive (Optional)

Entrepreneurship	Business Law	Business Economics
12053	12054	12105
.5 credit	.5 credit	.5 credit

APPLICATION LEVEL

	Investing	Banking & Finance	Banking Services**
	12107	12101	
	.5 credit	.5 credit	
	12107 .5 credit College Accounting	12101 .5 credit Advanced Accounting 33108 1 credit Investing 121	Accounting**
	33109	33108	
	1 credit	1 credit	
& Insurance	$_{ m Ng}$ 33109 1 credit Risk Mgmt 1210	Investing 12107	Securities & Inv
	106 .5 credit	LO7 .5 credit	estments**

Supportive (Optional)

Finance – Workplace Experience

12148

.5 credit

* Required course for pathway approval

** One credit from at least one strand is required

Government and Public Administration CAREER CLUSTER DESIGN

Government and Public Administration Pathway – CIP Code 44.0401

INTRODUCTORY LEVEL

*Intro to Government & Public Administration 43001 .5 credit Career & Life Planning 22207 .5 credit

TECHNICAL LEVEL

 ω

Consists of a

2)

Includes a workbased element. 1) Includes minimum of

three secondary-

level credits.

Approved Pathway:

4

courses.

Application-level

sequence: Introductory-level,

Technical-level, and

Supporting documentation

*Government & Public Admin. Fundamentals 43105 .5 credit
Human Growth & Development A 45004 .5 credit
IT for Service Professions 44010 .5 credit

.5 credit	43115	Media & Public Relations	12104 1 credit	12104	Accounting
.5 credit	44300	**Practical Law	.5 credit	12052 .5 credit	Business Management
.5 credit	12054	Business Law	12054 .5 credit	12054	**Business Law
.5 credit	12105	Business Economics	12105 .5 credit	12105	Business Economics
າce Stranc	ıl Assistar	Pre-Law Legal Assistance Strand		Strand	Business Strand

APPLICATION LEVEL

5)

Technical-level and Application-level

courses receive .5

state-weighted

funding in an approved CTE

Study.

and a Program of

Improvement Plan,

Program

includes Articulation Agreement(s), Certification,

*Required for pathway approval **Required in the Strand	Youth Court	Governance Applications	Career Connections	Foundations In Law
	44310	43250	22275	44305
	44310 1 credit	43250 1 credit	22275 .5 credit	44305 1 credit

HEALTH & BIO SCIENCES CAREER CLUSTER DESIGN

BioChemistry Pathway – CIP Code 14.1401

Approved Pathway:

- Includes minimum of three secondarylevel credits.
 Includes a workbased element.
- Consists of a sequence: Introductory-level, Technical-level, and Application-level
- Supporting
 documentation
 includes Articulation
 Agreement(s),
 Certification,
 Program
 Improvement Plan,
 and a Program of
- 5) Technical-level and Application-level courses receive .5 state-weighted funding in an approved CTE

Study.

INTRODUCTORY LEVEL

7	Computer Applications (8-9)	Computing Systems (8-9)	Environmental Science
	10004/60004	10002/60002	03003
	1 credit	1 credit	1 credit
	Engineering Technology	Engineering Applications	Chemistry
	21003/71003	21002/71002	03101
	1 credit	1 credit	1 credit

TECHNICAL LEVEL

Environmental Law		Anatomy & Physiology	Human Body Systems or	IB Environmental Systems	Marine Science	Wildlife Management
04170		03053	14102	03208	03005	18501
1 credit		1 credit	1 credit	1 credit	1 credit	1 credit
	Science	Plant Science/Plant & Soil	Pharmacology	Applied BioChemistry	AP Environmental Science	Biotechnology in Agriculture
		18055/18058	14253	03203	03207	18308
		1 credit	1 credit	1 credit	1 credit	1 credit

Particular Topics in Engineering	Workplace Experience	Natural Resources Management	Biotechnical Engineering	BioEngineering or	Emerging Technologies in STEM
21015	21048	18504	21014	21020	21053
21015 1 credit	1 credit	1 credit	1 credit	1 credit	21053 1 credit
and Wildlife Science	Environmental Resources	Science and Engineering	Research in Environmental	and Resource Scheduling	Project Management
37506		21016		21205	
1 credit		1 credit		1 credit	

Approved Pathway:

- Includes minimum of three secondarylevel credits.
- Includes a workbased element.
 Consists of a
- Consists of a sequence: Introductory-level, Technical-level, and Application-level courses.
- 4) Supporting documentation includes Articulation Agreement(s). Certification, Program Improvement Plan, and a Program of
- Study.
 5) Technical-level and Application-level courses receive .5 state-weighted funding in an approved CTE pathway.

HEALTH & BIO SCIENCE CAREER CLUSTER DESIGN

BioMedical Pathway - CIP Code 14.0501

Biomedical Innovation BioEngineering or Biotechnical Engineering Emerging Technologies in STEM		Anatomy & Physiology Robotics	Human Body Systems	Prin. Of Biomedical Science		Biology Engineering Appl. (8-9) Engineering Tech (8-9)	
g in STEM			or	nce			
14255 21020 21014 21053	APPLICATION LEVEL	03053 21009	14102	14251	TECHNICAL LEVEL	03051/03052 21002/71002 21003/71003	INTRODUCTORY LEVEL
1 credit 1 credit 1 credit 1 credit	ON LEVEL	1 credit 1 credit	1 credit	1 credit	LEVEL	1 credit 1 credit 1 credit	RY LEVEL
Project Management and Resource Scheduling Workplace Experience HealthCare Sciences - Other		AP Biology	Ag. Food Science	Pharmacology		Computing Systems (8-9) Computer Appl. (8-9)	
21205 14998 14999		03056	18305	14253		10002/60002 10004/60004	
1 credit 1 credit 1 credit		1 credit	1 credit	1 credit		002 1 credit 004 1 credit	

HEALTH & BIO SCIENCES CAREER CLUSTER DESIGN

Health Science Pathway – CIP Code 51.9999

Approved Pathway:

- Includes minimum of three secondary-level credits.
 Includes a work-hased element
- based element.
 3) Consists of a sequence:
- Introductory-level,
 Technical-level, and
 Application-level
 courses.
- 4) Supporting documentation includes Articulation Agreement(s),

Certification,

- Program
 Improvement Plan,
 and a Program of
 Study.
- 5) Technical-level and Application-level courses receive .5 state-weighted funding in an approved CTE pathway.

INTRODUCTORY LEVEL

Health Science IA	14000	.5 credit	O _R	Health Science IB	14001	1 credit
Biology 03052	/03051	1 credit		Chemistry	03101	1 credit
		TECHNICAL LEVEL	AL LEVE	IL		
General: *Human Body Systems	14102	1 credit	OR	*Anatomy & Physiology	03053	1 credit
*Health Science II	14002	1 credit		AP Biology	03056	1 credit
Nutrition & Wellness	08057	.5 credit	9	Medical Terminology B	36154	1 Crodit
Health Information (HIT)	14157	1 credit		Forensic Science Comprehensive	44225	1 credit
Forensic Science	44224	.5 credit		Special Health Science Tonics B	36254	1 Credit
Special Health Science Topics A Sports Care & Rehabilitation:	14254	.5 credit		Operation of the property of	, 1000 1000 1000 1000 1000 1000 1000 10	ב כו
Physical Therapy	14060	.5 credit		Care of Athletes	14062	.5 credit
Sports Medicine I Medical:	14072	1 credit				
Emer. Medical Technology A	14055	.5 credit	유	Emer. Med. Technology B	36055	1 credit
Medical Interventions	14105	1 credit		Prin. Of Biomed Science	14251	1 credit
Biotechnology I A	14252	.5 credit	ОR	Biotechnology I B	36252	1 credit
Pharmacology Health Care	14253	1 credit				
Nursing I Home Health Care	14051 14053	.5 credit .5 credit		First AID/CPR/EMR EMT	44050 44060	.5 credit 1 credit
		APPLICATION LEVEL	ION LEV	EL		
Nursing II	14052	.5 credit		Sports Medicine II	14073	1 credit
Biomedical Innovation Biotechnology II	14255 14256	1 credit 1 credit		Phlebotomy Technician Certified Nursing Assistant	14104 14997	.5 credit
Health Science III	36991	1 credit		Proj. Mgmnt & Resource Sched.	21205	1 credit
Health Science IV (Shadow/Work)	36992	1 credit		Certified Medication Aide	36156 36053	.5 credit
Enrencic Science II	2000	1 credit				!

*Select one for pathway approval

Forensic Science II 44226 1 credit

Boldfaced courses may require specialized teacher certification and/or offer professional certification.

HOSPITALITY AND TOURISM CAREER CLUSTER DESIGN

Restaurant & Event Management Pathway - CIP Code 12.0504

INTRODUCTORY LEVEL

Intro to Fam. & Con. Sciences	Business Essentials	Career & Life Planning
45001	12050	22207
1 credit	.5 credit	.5 credit

TECHNICAL LEVEL (Pick a strand at division.)

Nutrition & Wellness	*Culinary Essentials
08057	16052
.5 cred	.5 credi

Found. of Travel & Tour	*Event Planning & Mgmt	Event Planning & Management Strand
34053	34052	ment Str
.5 credit	.5 credit	and
Culinary	*Culinar	

Culinary Arts & Management Strand

.5 credit

1 credit

.5 credit 1 credit

4) Supporting

courses. Application-level 3) Consists of a

Introductory-level, sequence:

Technical-level, and

2) Includes a work-

based element.

1) Includes minimum of

three secondary-level

Approved Pathway:

Event Plan & Management Food Science Baking & Pastry II Baking & Pastry I 34057 .5credit / Arts II ry Arts I 34052 34058 34059 34056 22203

.5 credit

These may be offered after 3 credits have been selected:

5) Technical-level and

courses receive .5

Application-level

approved CTE funding in an state-weighted Study.

and a Program of

Improvement Plan,

Certification, Program Agreement(s), includes Articulation documentation

Entrepreneurship Principles of Marketing 12053 12164 1 credit .5 credit

APPLICATION LEVEL: (Continue strand)

	Event Planning & Management Strand	nent Stra	nd	Culinary Arts & Managemen	ment Strand	
	Community Connections	22270	22270 .5 credit	Community Connections	22270	22270 .5 credit
	Career Connections	22275	22275 .5 credit	Career Connection	22275	22275 .5 credit
	Applied Business Development	32200	32200 1 credit	Culinary Applications	34198 1 credi	1 credit
*Requi	*Required for pathway approval					

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HOSPITALITY AND TOURISM CAREER CLUSTER DESIGN

Travel and Tourism Pathway – CIP Code 52.0901

Approved Pathway:

- Includes minimum of three secondary-level credits.
- 2) Includes a workbased element.3) Consists of a
- sequence:
 Introductory-level,
 Technical-level, and
 Application-level
 courses.
- 4) Supporting
 documentation
 includes Articulation
 Agreement(s),
 Certification,
 Program
 Improvement Plan,

and a Program of

Study.
5) Technical-level and Application-level courses receive .5 state-weighted funding in an approved CTE pathway.

INTRODUCTORY LEVEL

Intro to Family & Con Sciences	Business Essentials	Career Life Planning
45001	12050	22207
1.0 credit	.5 credit	.5 credit

TECHNICAL LEVEL

Foundations of Hospitality & Lodging	Foundations of Travel & Tourism OR	*Min one of the following:	*Event Planning & Management	Nutrition & Wellness	Marketing	Entrepreneurship	*Culinary Essentials
34054	34053		34052	08057	12164	12053	16052
.5 credit	.5 credit		.5 credit	.5 credit	1 credit	.5 credit	.5 credit

Career Connections	Community Connections	Hospitality & Lodging Management
22275	22270	34200
.5 credit	.5 credit	1 credit

^{*}Required for pathway approval

HUMANSERVICES CAREER CLUSTER DESIGN

Early Childhood Development & Services Pathway – CIP Code 19.0709

INTRODUCTORY LEVEL

three secondary-) Includes minimum of		Approved Pathway:	
		1	_	

<u>_</u>

2) Includes a workbased element.3) Consists of a sequence:

level credits.

- sequence:
 Introductory-level,
 Technical-level, and
 Application-level
 courses.
- 4) Supporting
 documentation
 includes Articulation
 Agreement(s),
 Certification,
 Program
 Improvement Plan,
 and a Program of
- Study.
 5) Technical-level and Application-level courses receive .5 state-weighted funding in an approved CTE pathway.

Career & Life Planning 22207 .5 credit Intro to Family and Consumer Sciences 45001 1 credit

TECHNICAL LEVEL (Select a strand at the division)

Leadership Service in Action 22255 .5 credit

(Must teach all courses in the column of your choice)

	Childhood Development	*Foundations to Early			<u>Childhood Development</u>	*Orientation to Early
		19052				19051
		19052 1 credit				19051 1 credit
Childhood Development	*Foundations to Early		*Family Studies	*Human Growth & Dev. B	OR	*Human Growth & Dev. A
	19052		22208	45014		45004
	1 credit		.5 credit	1 credit		45004 .5 credit

APPLICATIONLEVEL

Career Connections	Community Connections	Early Childhood Application
22275	22270	19098
.5 credit	.5 credit	1 credit

*Required for Pathway Approval

HUMAN SERVICES CAREER CLUSTER DESIGN

Approved Pathway:

- Includes minimum of three secondary-level credits.
- Includes a workbased element.
- 3) Consists of a sequence: Introductory-level, Technical-level, and Application-level courses.
- 4) Supporting documentation includes Articulation Agreement(s), Certification,
- Program
 Improvement Plan,
 and a Program of
 Study.
- 5) Technical-level and Application-level courses receive .5 state-weighted funding in an approved CTE

Family, Community and Consumer Services Pathway - CIP Code 19.0799

INTRODUCTORY LEVEL

Career & Life Planning 22207 .5 credit Intro to Family and Consumer Sciences 45001 1 credit

TECHNICAL LEVEL

			22255 .5 credit	22255	Leadership Service in Action
			16052 .5 credit	16052	Culinary Essentials
			08057 .5 credit	08057	Nutrition & Wellness
			22210 .5 credit	22210	*Consumer & Personal Finance
			.5 credit	22208	*Family Studies
45014 1 credit	45004 .5 credit or Human Growth & Develop. B 45	٥	.5 credit	45004	*Human Growth & Develop. A

Career Connections	Community Connections
22275	22270
.5 credit	.5 credit

^{*}Required for Pathway approval.

INFORMATION TECHNOLOGY CAREER CLUSTER DESIGN

Information Support & Services Pathway - CIP Code 11.0301

Approved Pathway:

- Includes minimum
 of three
 secondary- level
 credits.
- 2) Includes a work- based element.3) Consists of a sequence:
- sequence:
 Introductory-level,
 Technical-level,
 and Applicationlevel courses.
- 4) Supporting documentation includes Articulation Agreement(s), Certification,
- 5) Technical-level and Application-level courses receive .5 state-weighted funding in an approved CTE pathway.

Program of

Program
Improvement
Plan, and a

Study.

INTRODUCTORYLEVEL

Computer Application	Computing Systems
10004/60004	10002/60002
1 credit	1 credit

TECHNICAL LEVEL

Information Management 10	CISCO Network Infrastructure Essentials 10	Info. Support & Services 10	Computer Technology 10	Data Systems/Processing 10	Database Applications 10	IT Essentials: PC Hardware & Software 10	Computer Maintenance 10
10051	10255	10253	10251	10054	10053	10254	10252
1 credit	1 credit	1 credit	1 credit	1 credit	1 credit	1 credit	1 credit

Scheduling	Information Support Project Mgmt. &Res. 31	Educational Trainer 10	Particular Topics in Info. Support and Serv. 10	Database Mgmt. & Data Warehousing 10
	1097	0260	2055	0052
	31097 1 credit	10260 1 credit	10055 1 credit	10052 1 credit

INFORMATION TECHNOLOGY CAREER CLUSTER DESIGN

Approved Pathway:

- 1) Includes minimum of three secondary-level credits.
- 2) Includes a workbased element.3) Consists of a
- sequence:
 Introductory-level,
 Technical-level, and
 Application-level
 courses.
- 4) Supporting
 documentation
 includes Articulation
 Agreement(s),
 Certification,
 Program
 Improvement Plan,
 and a Program of
- Application-level and Application-level courses receive .5 state-weighted funding in an approved CTE

Network Systems Pathway CIP Code 11.090

INTRODUCTORY LEVEL

Computer Applications	Computing Systems
10004/60004	10002/60002
1 credit	1 credit

TECHNICAL LEVEL

IT Essentials: PC Hardware & Software	Network Security	Wireless Networking	Telecommunications in Networking	Networking Infrastructure & Routing	Networking Systems	Network Technology
10254	10108	10107	10106	10105	10102	10101
1 credit	1 credit	1 credit	1 credit	1 credit	1 credit	1 credit

31095 31099	& Resource Scheduling	Network Systems Project Management	Applied Concepts of Networking
		t 31099 1 credit	31095 1 credit

INFORMATION TECHNOLOGY CAREER CLUSTER DESIGN

Programming and Software Development Pathway – CIP Code 11.0201

Approved Pathway:

- Includes minimum of three secondarylevel credits.
 Includes a workbased element.
- 3) Consists of a sequence: Introductory-level, Technical-level, and Application-level
- 4) Supporting
 documentation
 includes Articulation
 Agreement(s),
 Certification,
 Program
 Improvement Plan,

and a Program of

Study.
5) Technical-level and Application-level courses receive .5 state-weighted funding in an approved CTE pathway

INTRODUCTORYLEVEL

Intro to Physical Computing	Intro. To Computer Coding	Computer Applications	Computing Systems
31002	31001	10004/60004	10002/60002
.5 credit	.5 credit	1 credit	1 credit

TECHNICAL LEVEL

AP Computer Science Principles	Computer Prog Other Language	Data Systems/Processing	Web Page Design	Database Applications	Computer Programming	Technical Intro. to Comp. Science
31094	10156	10054	10201	10053	10152	41010
1 credit	1 credit	1 credit	1 credit	1 credit	1 credit	1 credit

Development Project Management	Programming and Software	Particular Topics in Computer Prog.	IB Computing	AP Computer Science A	Cyber Security
nt	31098	10160	10159	10157	41036
	1 credit	1 credit	1 credit	1 credit	1 credit

INFORMATION TECHNOLOGY CAREER CLUSTER DESIGN

Web and Digital Communications Pathway – CIP Code 11.1004

Approved Pathway:

- Includes minimum of three secondary-level credits.
 Includes a work-
- Includes a workbased element.
- 3) Consists of a sequence: Introductory-level, Technical-level, and Application-level courses.
- 4) Supporting documentation includes Articulation Agreement(s), Certification, Program Improvement Plan, and a Program of Study.
- 5) Technical-level and Application-level courses receive .5 state-weighted funding in an approved CTE pathway.

INTRODUCTORYLEVEL

Computing System 10002/60002 1 credit Computer Applications 10004/60004 1 credit

TECHNICAL LEVEL

Animation	Internet Marketing	Computer Programming	Graphic Design	Interactive Media	Computer Graphics	Web Page Design
10210	12162	10152	05162/11154	10203	10202	10201
1 credit	1 credit	1 credit	1 credit	1 credit	1 credit	1 credit

LAW, PUBLIC SAFETY, CORRECTIONS & SECURITY CAREER CLUSTERS DESIGN

Approved Pathway:

- 2 1) Includes minimum of based element. Includes a workthree secondarylevel credits.
- ω Consists of a
- Application-level sequence: Introductory-level, Technical-level, and
- 4 Study. Supporting and a Program of Program Certification, includes Articulation documentation Improvement Plan, Agreement(s),
- 5) Technical-level and approved CTE funding in an state-weighted courses receive .5 Application-level

Emergency & Fire Management Services— CIP Code 43.0299

INTRODUCTORY LEVEI

*Introduction to LPSS 44001 .5 credit History of Emer. Medical Svc 44005 .5 credit

TECHNICAL LEVEL

Fire Science I	Education	Public Safety Physical	First AID/CPR/EMR
44100	44020		44050
44100 1 credit	44020 1 credit		44050 .5 credit
	First Responder	Hazardous Materials for the	EMTI
	44070		44060
	44070 .5 credit		1 credit

APPLICATION LEVEL

**Fire Science II **I PSS Internship	44101 44298	1 credit 5 credit
Public Safety Telecommunications	44220	.5 credit
**EMT II	44065	1 credit

^{*}Required for pathway approval.

Boldfaced courses offer professional certifications and require specialized teacher certification.

First Aid/CPR is included in Fire Science. **Has a Pre-requisite course. LPSS Internship (44298) must be preceded by EMT or Fire Science.

Approved Pathway:

- 2 Includes minimum of Includes a worklevel credits. three secondary-
- ω Consists of a based element.
- Introductory-level, courses. Application-level sequence: Technical-level, and
- 4 Supporting Improvement Plan Program Certification, Agreement(s), documentation includes Articulation

and a Program of

5) approved CTE courses receive .5 Study. funding in an state-weighted Application-level Technical-level and

LAW, PUBLIC SAFETY, CORRECTIONS & SECURITY CAREER CLUSTER DESIGN

Corrections, Security, Law, & Law Enforcement Services - CIP Code 43.0199

INTRODUCTORY LEVEL

Introduction to LPSS 44001 .5 credit

TECHNICAL LEVEL

	**LPSS Internship	Youth Court	Foundations in Law	Pre-Law Strand			Business Communications	Business Management	Accounting	Business Economics	*Practical Law	*Business Law	Pre-Law Strand
	44298	44310	44305		APF		12009	12052	12104	12105	44300	12054	
	.5 credit	1 credit	1 credit		APPLICATION LEVEL		.5 credit	.5 credit	1 credit	.5 credit	.5 credit	.5 credit	
**Forensic Science II **LPSS Internship	Corrections Officer Public Safety Telecom.	Certified Protection Officer	**Law Enforcement II	Law Enforcement Strand	LEVEL	Forensic Science Comp	Forensic Science	First Responder	Hazardous Materials for the	Public Safety Physical Educ.	First Aid/CPR/EMR	Law Enforcement I	Law Enforcement Strand
44226 44298	44215 44220	44210	44201			44225	44224		44070	44020	44050	44200	
1 credit	.5 credit	.5 credit	1 credit			1 credit	.5 credit		.5 credit	1 credit	.5 credit	1 credit	

Boldfaced courses offer professional certifications and require specialized teacher certification.

*Required for Pathway and/or Strand

**Has a Pre-requisite course

MANUFACTURING CAREER CLUSTER DESIGN

Manufacturing Pathway –

CIP Code 48.0000

Approved Pathway:

- Includes minimum of three secondarylevel credits.
- 2) Includes a work-based element.3) Consists of a
- sequence:
 Introductory-level,
 Technical-level, and
 Application-level
 courses.
- documentation include Articulation Agreement(s) and a Program of Study.

4

Supporting

5) Technical-level and Application-level courses receive .5 state-weighted funding in an approved CTE pathway.

INTRODUCTORY LEVEL

*Introduction to Welding	Production Blueprint Reading	Introduction to Industrial Technology
13207	21108	38001
.5 credit	.5 credit	.5 credit

TECHNICAL LEVEL

Production Strand	trand		Maintenance Strand	Strand	
Manufacturing Processes	13002	1 credit	Skilled Mechanical Crafts	17062	.5 credit
Advanced Production Blueprint Reading	39108	.5 credit	Advanced Production Blueprint Reading	39108	.5 credit
Drafting/CAD Production Welding Processes I (Ag	21107	1 credit	Machine Tool Technology 1a	39203	.5 credit
Welding)	39207 (18404)	1 credit	Maintenance Welding Processes Mech Power Transmissions, Conveyor	13208	1 credit
Machine Tool Technology	13203	1 credit	Systems	13302	.5 credit
Mass Production	13052	1 credit			
CAM	13204	1 credit			

Strand		Maintenance	Strand	
21150	1 credit	Remodeling & Bldg. Maintenance	17009	.5 credit
39052	1 credit	Sheet Metal & HVACR	38012	1 credit
39204	1 credit	Sheet Metal Technology	13205	.5 credit
13998	1 credit	HVAC Technology	17056	.5 credit
39208(18407)	1 credit	Plumbing Technology	17058	.5 credit
39010	.5 credit	Electrical & Security Systems	17113	.5 credit
38010	1 credit	**Hydraulics & Pneumatics	39302	.5 credit
**Has a specific	c Pre-requi	Work-Based Maintenance Experience Site course(s) – See Competency Pro	13348 ofile for details.	.5 credit
	Production Strand 21150 39052 39204 Manuf. 13998 occesses II 39208(18407) 2chnology 38010 2rand Only **Has a specific	Strand 1 credit 21150 1 credit 39052 1 credit 39204 1 credit 13998 1 credit 39208(18407) 1 credit 39010 .5 credit 38010 1 credit	Strand Maintenance 21150 1 credit Sheet Metal & HVACR 39052 1 credit Sheet Metal Technology 1 39204 1 credit HVAC Technology 39208(18407) 1 credit HVAC Technology 39010 .5 credit HVAC Technology Work-Based Maintenance Experience **Has a specific Pre-requisite course(s) – See Competency Pro	Maintenance Stran 1150 1 credit Remodeling & Bldg. Maintenance 9052 1 credit Sheet Metal & HVACR 9204 1 credit Sheet Metal Technology 9204 1 credit HVAC Technology 8(18407) 1 credit HVAC Technology 9010 .5 credit Plumbing Technology 9010 .5 credit Electrical & Security Systems 8010 1 credit **Hydraulics & Pneumatics Work-Based Maintenance Experience Work-Based Maintenance Experience Work-Based Maintenance Profile fo

Approved Pathway:

- Includes minimum of three secondarylevel credits.
- Includes a workbased element.
- 3) Consists of a sequence: Introductory-level, Technical-level, and Application-level courses.
- 4) Supporting documentation includes Articulation Agreement(s), Certification, Program Improvement Plan, and a Program of Study.
- 5) Technical-level and Application-level courses receive .5 state-weighted funding in an approved CTE pathway.

MARKETING CAREER CLUSTER DESIGN

Marketing Pathway – CIP Code 52.1402

INTRODUCTORY LEVEL

*Business Essentials 12050 .5 credit

TECHNICAL LEVEL

*Principles of Marketing a 12164 1 credit

**Business Communications 12009 .5 credit

Technical Supportive Courses (Optional)

Digital Marketing	Comp. Graphics	Bus. Economics	Bus. Management	Accounting
35162	10202	12105	12052	12104
.5 credit	10202 1 credit	.5 credit	.5 credit	1 credit
Web Page Design	•			
10201	12163	12165	05162/11154	12053
1 credit	.5 credit	.5 credit	1 credit	.5 credit

APPLICATION LEVEL

*Marketing Applications a 35300 1 credit

Application Supportive Courses (Optional)

	1 1				
Mktg Workplace Exp.	12198	.5 credit	Marketing Mgmt.	12166	1 credit
Integrated Mktg. App. 12195 .5 credit	12195	.5 credit	Marketing Research	12196	1 credit
Mktg. Communications 35168 .5 credit	35168	.5 credit			

- * Required for pathway approval and used for assessing mastery of knowledge of marketing completers
- ** Course is not required for pathway approval, but strongly recommended by external review committee and KACCTE
- a Marketing Completer Assessment Course aligns directly with MBA Research's 2-Credit Standard Marketing Program of

Approved Pathway:

- 1) Includes minimum of level credits. three secondary-
- 2 Includes a workbased element.
- ယ Consists of a courses. Application-level Technical-level, and Introductory-level,
- 4 Supporting Certification, Agreement(s), includes Articulation documentation
- Study. Technical-level and state-weighted courses receive .5 Application-level

and a Program of

Improvement Plan

Program

5 approved CTE funding in an

TRANSPORTATION CAREER CLUSTER DESIGN

Mobile Equipment Maintenance Pathway – CIP Code 47.9999 (Automotive Collision Strand)

INTRODUCTORY LEVEL

Business Essentials	Automotive Information	*Intro to Transportation	*Intro to Industrial Technology
12050	40050	40100	38001
12050 .5 credit	40050 .5 credit	40100 .5 credit	38001 .5 credit

TECHNICAL LEVEL

Auto Refinishing Comprehensive	Auto Collision I	Entrepreneurship
40308	40300	12053
40308 1 credit	40300 1 credit	12053 .5 credit

Research & Emerging Trends in Transportation	**Custom Refinishing B	**Custom Refinishing A	**Auto Collision II
40250			
40250 .5 credit	40315	40314	40302 1 credit
t OR	40315 .5 credit	40314 .5 credit	1 credit
40251			
40251 1 credit			

^{*}One of these two courses is required for pathway approval. **Has a pre-requisite course.

^{*}Will not count as one of the 3 required secondary level credits for pathway approval. Will count as a funded course.

TRANSPORTATION CAREER CLUSTER DESIGN

Mobile Equipment Maintenance Pathway – CIP Code 47.9999

(Automotive Technology Strands)

INTRODUCTORY LEVEL

Automotive Information	*Intro to Industrial Technology	
40050	38001	
40050 .5 credit	38001 .5 credit	
Business Essentials	*Intro to Transportation	
12050	40100	
12050 .5 credit	40100 .5 credit	

TECHNICAL LEVEL

						General Service I	Strand One Automotive Technology	Entrepreneurship	Engine Mechanical Repair	Small Gas Engines & Powertrains
						40150	otive T	12053	40216	40212
_						40150 1 credit	echnology	12053 .5 credit	.5 credit	1 credit
Mobile HVAC	Steering / Suspension	Engine Performance I	Sm Gas Eng./Powertrains	Drive Train Technology	Brakes	Fund. Of Electronic/ Electrical Systems	Strand		Diesel Engine Technology	Alternative Power
						al System:	Two Aut		40218	40210
40228	40224	40220	40212	40208	40204	S	Strand Two Automotive		40218 .5 credit	.5 credit
.5 credit	.5 credit	.5 credit	1 credit	.5 credit	.5 credit	40200	Technology			
••	••	••		•		ns 40200 1 credit	уgy			

APPLICATION LEVEL

5

state-weighted

courses receive .5 Application-level Technical-level and

approved CTE funding in an

Research & Emerging Trends in Transportation

40250

.5 credit OR

40251

1 credit

Study.

and a Program of

Improvement Plan,

Program Certification, 4

Supporting

courses. Application-level

documentation

Agreement(s), includes Articulation ω

Consists of a based element. Includes a work-

Introductory-level, sequence:

Technical-level, and

2

Includes minimum of

three secondary-

level credits.

Approved Pathway:

pathway.	Strand One Auto	Strand One Automotive Technology	Strand Two Automotive Technology	omotive T	Technology
	**General Service II	40152 1 credit	**Adv. Electronics/Electrical Systems 40202 1 credit	40202	1 credit
	**General Service III	40154 1 credit	**Advanced Brakes	40206	40206 .5 credit
			**Engine Performance II	40222	1 credit
*One of these two courses is re	*One of these two courses is required for pathway approval. **Has a pre-requisite course	e-requisite course.	**Advanced Steering / Suspension	40226	.5 credit
₩Will not count as one of the 3 in	*Will not count as one of the 3 required secondary level credits for pathway approval.	way approval.	**Adv. Small Engines / Powertrains	40214 1 credit	1 credit

45

KANSAS CAREER CLUSTERS TERMINOLOGY

some common terms and definitions that are used consistently throughout the state. To that end, we provide the following terms and definitions as a resource: As we design and implement the Career Clusters/Pathways Program of Study into the Kansas educational system, we find it imperative to have

health science clinicals, SAE, or in-house training/marketing. to demonstrate knowledge learned through practical application of skills. It may include professional learning experience such as internship, APPLICATION LEVEL COURSE: An advanced level course that builds on the technical level course and includes opportunities for the learner

ARTICULATION: A systematic, seamless student transition process from secondary to postsecondary education that maximizes use of resources and minimizes duplication.

a secondary institution and a postsecondary institution, or a sub-baccalaureate degree granting postsecondary institution and a baccalaureate such incentives as scholarships. degree granting institution; to a program that is designed to provide students with a non-duplicative sequence of progressive achievement Credit transfer agreement (Advanced Placement Credit). It must include a seamless progression from one level to the next and may include institutions.{[Section 3(4)] Perkins Act of 2006: The Official Guide} For Kansas use: the Articulation Agreement does not have to include a leading to technical skill proficiency, a credential, a certificate or a degree and is linked through credit transfer agreements between the two ARTICULATION AGREEMENT: A written commitment that is agreed upon at the state level or approved annually by the lead administrators of

entrepreneurship of an individual. [Section3(5) Perkins Act of 2006: The Official Guide] attitudes, general employability skills, technical skills, occupation-specific skills, and knowledge of all aspects of an industry, including a certificate, or an associate degree, may include prerequisite courses (other than remedial courses) that meet other requirements; and include coherent and rigorous content aligned with challenging academic standards and relevant technical knowledge and skills needed to prepare for competency-based applied learning that contributes to the academic knowledge, higher-order reasoning and problem-solving skills, work further education and careers in current or emerging professions. It provides technical skill training leading to, an industry-recognized credential CAREER AND TECHNICAL EDUCATION (CTE): Organized educational activities that offer a sequence of courses that provide individuals with

assisting the student in preparing an individual plan of study. institution for advanced placement credit. A course can be a part of a sequence of courses that creates an overall program of study leadership. Courses may include experience-based learning opportunities. Courses, if applicable, can be articulated with a postsecondary is the inclusion of knowledge and skills that all students should achieve for a given career. Each course is required to provide enhanced and from introductory to technical to application levels that support state and national standards and competencies. The foundation for CTE courses CAREER AND TECHNICAL EDUCATION (CTE) COURSE: A CTE course (for an approved cluster/pathway) is one in a progression leading improved instruction through the integration of rigorous academics, career success skills, career development skills and student

academic standards and relevant technical knowledge and skills needed to prepare for further education and careers in current or emerging knowledge and skills as recognized by the Career Clusters. These courses provide learners with rigorous content aligned with challenging CAREER AND TECHNICAL EDUCATION (CTE) SEQUENCE OF COURSES: Those courses that include the career cluster pathway

grade and do not include career exploration courses. Academic courses are counted only if they reflect industry skill standards. prerequisite courses (other than remedial courses) that meet other requirements. Career and Technical education courses may begin at eighth professions, provides technical skill proficiency, an industry-recognized credential, a certificate, or a postsecondary degree, may include

characteristics and job duties. Kansas identifies 16 broad clusters: 1) Agriculture, Food and Natural Resources; 2) Architecture and Engineering; 7) Finance; 8) Government & Public Administration; 9) Health & Bio Science; 10) Hospitality and Tourism; 11) Human Services; 12) Construction; 3) Arts, A/V Technology and Communications; 4) Business, Management & Administration; 5) Education and Training; 6) CAREER CLUSTER(S): Divisions of the seven fields that include occupations organized around knowledge and skills that have common Information Technology; 13) Law, Public Safety and Security; 14) Manufacturing; 15) Marketing; and 16) Transportation.

communication, systems thinking and technology). Kansas CTE has identified the US Department of Education's Employability Skills Framework as a model of career success skills. thinking skills), effective relationships (interpersonal skills and personal qualities), and workplace skills (resource management, information & CAREER SUCCESS SKILLS: Foundational skills that are essential for success in all careers; including applied knowledge (academic and critical

a passing score on a third-party, end-of-pathway assessment. those credits being a combination of technical and application level courses. A Completer must also earn an industry-recognized certification or **COMPLETER:** A student who has completed a minimum of three (3) secondary level credits in a single CTE pathway, with at least two (2) of

the average of the letter grades, an average percentage on end-of-course assessments, or on the competency profile CONCENTRATOR: A student who has earned two (2) or more secondary level credits in a single CTE pathway, which are a combination of at least two of the three levels: Introductory, Technical and Application and meets a 70% proficiency on a technical skills assessment measured by

CROSSWALK (COMMON) COURSE: A course that is approved for inclusion in more than one Career Cluster pathway.

contains an active verb (that is observable and measurable) and a noun (instructional area). Specified competencies are identified and validated by business and industry and supported by the local advisory committee. COURSE COMPETENCY: Statement that describes a unit of instruction (or duty area) related to course outcomes. A competency statement

requires formal training exceeding that which can be provided on the job HIGH DEMAND OCCUPATION: An occupation that: 1) has a critical shortage of workers to fill the employment demands of industry, and 2)

as defined by each industry and/or education (examples: independent decision making, critical thinking, problem solving), 3) a recognized validation of skill attainment or credential (examples: certification, registration, licensure), and 4) included mandatory continuing education and/or HIGH SKILL OCCUPATION: An occupation that requires all of the following: 1) Specialized technical training, 2) an advanced level of skill sets

a specific area/region or an entry wage of \$11.43 or higher, and 2) offers a wage progression strategy. HIGH WAGE OCCUPATION: An occupation that: 1) has a median wage for the occupation that is at least 200% above federal poverty level for

their postsecondary options, and has a portable electronic portfolio. includes interest assessments to help students identify career preferences, assists with course selections based on career interests, looks at INDIVIDUAL PLAN OF STUDY: An individual plan developed by a student (with guidance) to help guide them through the education process. It

skills. Taken prior to the technical and application level courses INTRODUCTORY LEVEL COURSE: An introduction to a specific or multiple clusters or pathways that require similar foundation knowledge and

Technology; Business; Agriculture; Design, Production, & Repair; Health; Public Services; and Family & Consumer Sciences. KANSAS CAREER FIELD(S): Occupations that are organized around broad, common knowledge and skills. They are recognized as Media &

employment, that identify each step, skill, educational requirement and aptitude needed to be successful within any specific career. Currently there are 35 state-approved pathways identified within the 16 clusters. KANSAS CAREER PATHWAY(S): Organized groupings of rigorous academic and career related courses leading from education to

consistent from one system to the next. to help schools and education agencies maintain longitudinal information about students' coursework in an efficient, standardized format that is KANSAS COMMON COURSE CODE: An alpha-numeric code used as a standard course description for secondary education that is intended

KANSAS CTE SCHOLAR: A Kansas initiative to recognize well-rounded, outstanding career and technical education (CTE) students finishing their senior year of high school

education (CTE) pathway. PARTICIPANT: A student who has earned a minimum of .5 credit, but less than two (2) secondary level credits in a single career and technical

PROFESSIONAL LEARNING EXPERIENCE (WORK-BASED EXPERIENCE): Experience based on a learner's career interest that partners

opportunities above and beyond the classroom; may provide instruction in all aspects of the industry. It is recommended these experiences are included in application level courses. the learner with the school, community and/or business/industry. It provides career or work

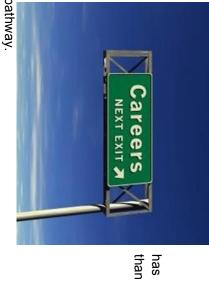
one high school course through integrated academic and/or CTE courses successfully demonstrated they have simultaneously met standards and expectations in more PROFICIENCY CREDIT: Full or partial academic and/or CTE credit awarded to a student who

coordinated, non-duplicative progression of courses; and leads to an industry-recognized Program of Study is a requirement for Pathway approval credential or certificate at the postsecondary level, or an associate or bachelor's degree. The postsecondary education elements; includes academic and career and technical content in a PROGRAM(S) OF STUDY (POS): Plan that incorporates secondary education and

introductory level course, with a focus on acquiring practical technical skills specific to the cluster/pathway. TECHNICAL LEVEL COURSE: A course that builds on the knowledge and skills learned in the

and wellness awareness, and environmental literacy. into what is known as 21st Century Content: global awareness, financial, economic, business and entrepreneurial literacy, civic literacy, health skills, creativity & innovation skills, collaboration skills, information and media literacy skills, and contextual learning skills. They are integrated 21st CENTURY SKILLS: Skills that are essential for workplace/career success; including: critical thinking/problem solving skills, communication

of the content of a course or subject, regardless of the amount of time spent by the student in the course or subject. (Article 6, Section 2(a) of course or subject is offered and generally requires to complete. Individual students may be awarded credit based upon demonstrated knowledge of credit is that which generally requires 120 clock hours to complete. Credit may be awarded in increments based upon the amount of time a the Kansas Constitution) **UNIT OF CREDIT:** A measure of credit that may be awarded to a student for satisfactory completion of a particular course or subject. A full unit



CAREER CLUSTER RESOURCES

Cluster/PathwayEssentials

Advisory Committee Handbook 2017

Creating an Articulation Agreement

Current Guidelines for Facilities in CTE Classrooms/Labs

Statewide Articulation Agreements

Course Double-Up — Nesting Policy for Pathways

Kansas Pathway Assessments and Credentials (K-PAC) Revised June 2017

Career & Technical Student Organizations (CTSO)

Professional Learning Experience (PLE) Tool Kit

2017-18 Dates to Remember

Pathway Application

General Links

Pathways Application Training Kansas State Department of Education

Pathways User's Guide

KSDE- Career & Technical Education

KSDE- Career Clusters and Pathways

Pathways Student Data Management Checklist **CPPSA Checklist** Senate Bill 155

Pathway Deletion Form

ADVISORY COMMITTEE INFORMATION

An Advisory Committee is a group of persons outside the education profession, comprised of representative lay-people, recognized and clusters/pathways, based on the employment needs of the community, state, regional, national, and international marketplace. respected in their own fields of work who advise CTE educators, administrators, and local board of education members regarding

Advisory Committee Design: Each CTE cluster or pathway must establish its own industry-unique Advisory Committee. The committee on more than one cluster advisory committee; if appropriate (i.e. a welder could serve on both the Agriculture and Manufacturing can serve multiple pathways within a cluster, but the committee as a whole cannot serve multiple clusters. An individual may serve Cluster Advisory Committees).

advisory's committee's input include: they are serving and advise the CTE coordinator and local administration on improvement of the cluster/pathway. Suggestions for an Goals, Objectives and Activities: The Advisory Committee members evaluate the Career and Technical Education (CTE) cluster/pathway

- Analyze the course content
- Assist with selecting appropriate industry credentials/certifications
- Evaluate facilities, program equipment, teacher resources, and textbooks
- Assist with the instructional and learning experience
- Assist with internship and job opportunities
- Form partnerships
- Advise on Short- and Long-range planning
- Provide recommendations for pathway improvement

Organization of an Advisory Committee: Considerable attention should be given to the careful selection of members of the local from its respective cluster/pathway. Business/Industry members need to make their living in areas related to the pathway Advisory Committee. The membership of a Career Cluster/Pathway Advisory Committee must include a minimum of three (3) representatives from business/industry with the optional addition of a postsecondary representative and a current student

each pathway within the cluster Membership of a Cluster level Advisory Committee would include a minimum of three representatives from business/industry for

strongly encouraged to attend and participate in Advisory Committee meetings, even though they are non-voting members Ex-Officio (non-voting) members of the committee include district staff and administration representatives. District staff members are

Advisory Committee Meetings: Meetings are conducted a minimum of twice each school year with a focus on evaluating the current pathway(s). Annual discussion should include an evaluation of why the program exists.

Pathway Improvement Plan: A written Pathway Improvement Plan is required for each approved pathway and is to be kept on file locally and updated annually. A plan that shows growth across a three year period is required and should be written in S.M.A.R.T. Goal format. Topics should include goals for:

- Teacher Professional Development
- Physical Environment (Updating equipment and facilities)
- Instructional Strategies (Updating teacher resources, course additions, deletions, etc.)
- Partnerships (With parents, community, business/industry, and postsecondary institutions)
- Othe

Education annually. The Plan should be developed and approved by the Advisory Committee members and should be presented to the local Board of

Regional Advisory Committees: A Regional Advisory Committee is one that represents multiple schools/districts that have the same state approved pathway. Some guidelines for Regional Advisory Committees are as follows

- Need to include business members that represent all communities included on the committee
- Need to include postsecondary members that represent all programs covered within the pathway
- Each meeting needs to speak to each school's specific pathway successes, concerns, improvements, etc
- Need to develop Improvement Plans for each specific school represented
- Each school needs meeting minutes specific to their school that are kept on file locally
- For More Information on Advisory Committees: please consult the complete Advisory Committee Handbook 2017

RIGOROUS PROGRAM OF STUDY RESOURCE PAGE

instrumental for creating and implementing a high quality, comprehensive POS. prepare students for postsecondary education and career success that utilizes a framework of 10 supporting elements viewed as A Rigorous Program of Study is a comprehensive, structured approach for delivering academic and career and technical education to

10 ELEMENTS

- Legislation & Policies Federal, state, and local legislation or administrative policies promote POS development and implementation.
- Partnerships Ongoing relationships among education, business, and other community stakeholders are central to POS design, implementation,
- ω **Professional Development-** Sustained, intensive, and focused opportunities for administrators, teachers, and faculty foster POS design, implementation, and maintenance
- 4 and student outcomes are crucial for ongoing efforts to development and implement POS Accountability and Evaluation Systems - Systems and strategies to gather quantitative and qualitative data on both POS components
- 'n advance in college and/or their careers comprise the foundation of a POS College and Career Readiness Standards - Content standards that define what students are expected to know and be able to do in order to enter and
- 9 education without duplicating classes ot requiring remedial coursework. Course Sequences - Non-duplicative sequences of secondary and postsecondary courses within a POS ensure that students transition to postsecondary
- Credit Transfer Agreements Credit transfer agreements provide opportunities for secondary students to be awarded transcripted postsecondary credit at the time the credit is earned and are supported by formal agreements between secondary and postsecondary education systems
- Guidance Counseling and Academic Advisement- Guidance counseling and academic advisement help students make informaed decisions about which POS to pursue.
- 9 students to apply academic and technical learning to their POS coursework Teaching and Learning Strategies - Innovative and creative instructional approaches enable teachers to integrate academic and technical instruction and
- <u>10</u>. Technical Skills Assessments - National, state, and/or local assessments provide ongoing information to the extent to which students are attaining the necessary knowledge and skills for entry into and advancement in postsecondary education careers in their chosen POS

For more information visit the Perkins Collaborative Resource Network (PCRN) at: http://cte.ed.gov/nationalinitiatives/rposdesignframework.cfm

Career Technical Education PATHWAY CROSSOVER COURSES

The courses listed below can be found in more than one pathway.



		Health Science 51.9999														×				×				×	×								
		£020.41 lsɔib9Moi8								×						×				×			×	×	×		×						
		BioChemistry/Green/Hazmat 14.1401														×							×			×	×						
		T010.E1 gninis1T\gnid2s9T																															
s		Government & Public Admin. 44.0401	×																											×		×	×
Public Services		Emergency & Fire Mgmnt 43.0299																														T	
blic S		Corrections, Security, Law & Law Enforcement 43.0199	×																											×		×	×
Pu		Family, Consumer & Community Srv. 19.0799																															
		Early Childhood Develop. 19.0709																															
		Travel & Tourism 52.0901																												×	×		×
)gy		Restaurant & Event Management 12.0504																			×									×	×		×
chnolo	ces	Marketing 52.1402	×																										×	×	×	×	×
tion Te	Health Sciences	L080.CZ Songrif scanisua	×																											×	×	×	
ıforma	Healt	Business Mgmnt & Entrepreneurship 52.0799	×									×		×							×								×	×	×	×	×
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AV	vices;	Programming & Software Dev. 11.0201																															
	Training; LPSS; Human Services; and Government	Network Systems 11.0901																													П		
g.	S; Hum nent	Info. Support & Services 11.0301																													T		
acturir	raining; LPSS; Hu and Government	S070.e0znoitsainummo2 VA																													×		
Manut	Trainir and G	Mobile Equipment Maintenance 47.9999																													×		
Architecture & Construction; Manufacturing; STEM; and Transportation	Education &	0000.84 gnirutsefuneM		X	X		×					×	×															×					
Constru and Tr	Educa	Engineering & Appl. Math 14.0101					×	×															×				×	×					
ure & (STEM;		£702.71 ygran			X																							×					
chitect	nt; n	Construction & Design 46.0000		×																		×											
An	gemer ince; a Tourisr	Cartogr./Geospatl/Spatial Math 15.1102						×											×														
	Susiness Management; Aarketing; Finance; and Hospitality & Tourism	Power, Strctural & Tech. Systems 01.0201				×			×		×	×	×	×	×																		
	usines: arketir Hospita	Plant Systems 01.1101				×			×		×			×	×																		
	B ∑ T	Matural Res. & Env. Systems 03.0101				×			×		×			×	×																		
Agriculture		Food Prod. & Proc. Systems 01.0401				×			×	×	×			×	×			×															
Agric		Biotechnology in Agriculture 23.1201				×			×	×	×			X	X			×								X							
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		Comp. Agriculture Science 01.9999				×			×	×	×			×	×			×								×							
		L010.10 smətsy2 szənisudingA				×			×		×			×	×																		
	s	₽ AMHTAY & C.I.P CODE																						051									
	Cluster Colors	•	04	10	80	49	90	13	02	05	03	74	20	01	02	53	05	01	10	99	00	03	20	03051/53051	55	80	14	90	60	05	20	24	25
	ster (SCED	12104	38010	39108	18049	39108	21013	18202	18305	18203	18404	18407	18201	18002	03053	18105	18101	10210	03026	32200	21103	21020	030	14255	18308	21014	21108	12009	12105	12050	12054	12052
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		Course Titles		3y	t Rea		eprin				ınicati						ce				oment												
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A1

Kansas Kansasion APPENDIX A

The courses listed below can be found in more than one pathway.

Career Technical Education PATHWAY CROSSOVER COURSES

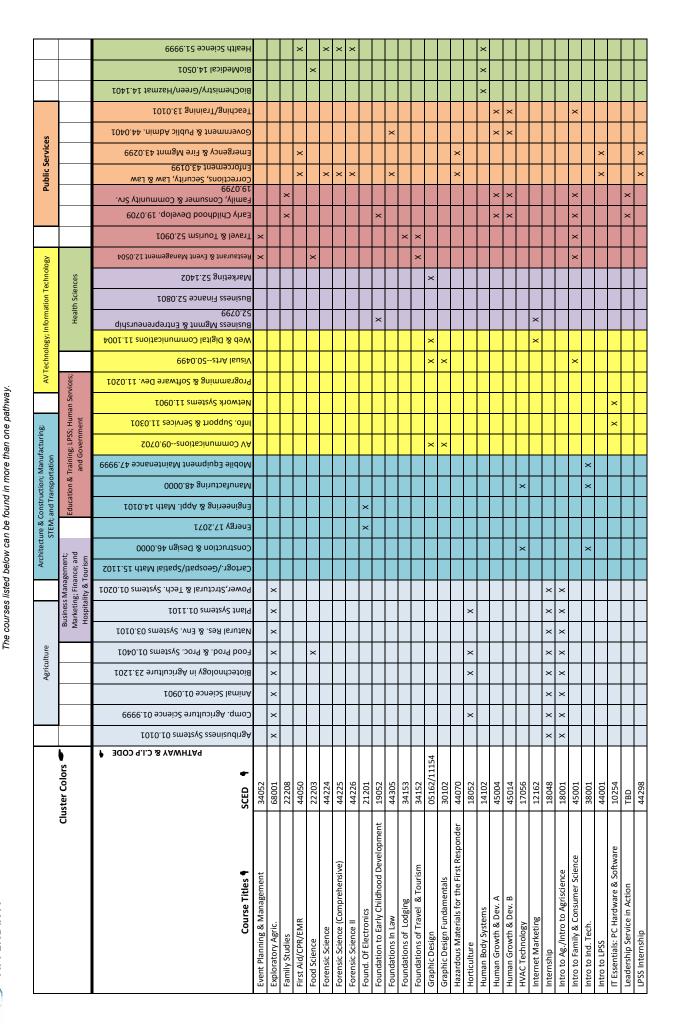
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18-19 Crosswalk Chart

A2

Career Technical Education

PATHWAY CROSSOVER COURSES



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18-19 Crosswalk Chart

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Career Technical Education PATHWAY CROSSOVER COURSES

The courses listed below can be found in more than one pathway.

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