

The revised Programs of Study and corresponding courses are outlined below by Career Cluster. For more information on the specific courses, please visit our career cluster webpage at

https://www.tn.gov/content/dam/tn/education/ccte/cte/2022-23\_Course%20and%20P rogram%20of%20Study%20Revisions.pdf

> Williamson County Schools CCTE Programs of Study 2022-2023

This guide indicates Programs of Study (POS) being offered in WCS as well as certifications/credentials that students may obtain through in each POS when available. Each POS is aligned with one of the state approved 16 Career Clusters.

Notes:

- \* Indicates a dual credit opportunity
- \*\* Indicates dual enrollment opportunity
- SPOS indicates Special Program of Study
- CTE courses satisfying additional graduation requirements
- WBL may substitute for a Level 3 or Level 4 course in any Program of Study and complete a student's elective focus with prior approval

Program of Study	Level 1	Level 2	Level 3	Level 4	Credential/ Certification	CTSO	Recommended Elective(s), not approved for Elective Focus
Mechatronics CSCC Engineering Systems Technology A.A.S Fairview	Principles of Manufacturing C13H05 NIMS Industry Certification And CPT Industry Certification	Digital Electronics C13H07	Mechatronics I C13H16 * Dual Credit Opportunity through CSCC or Mechatronics Dual Enrollment (CSCC) C13H21 *Mechatronics System Assistant Industry Certification	Mechatronics II C13H17 * Dual Credit Opportunity through CSCC or Mechatronics Dual Enrollment (CSCC) C13H21 ** Manufacturing Practicum 5926	Certification CPT Industry Certification -evel I Siemens Certified	Skills USA or TSA	** See specific course sequence ending in CSCC Engineering Systems Technology A.A.S Degree or Engineering Systems Technology CSCC Technical Certificate

#### **Advanced Manufacturing**

## Agriculture and Veterinary Science

Program of Study	Level 1	Level 2	Level 3	Level 4	Credential/ Certification	стѕо	Recommend ed Elective(s), not pproved for Elective Focus
Veterinary and Animal Science Page	Agriscience C18H19 Lab Science and elective focus credit only for students completing a Veterinary and Animal Science or Horticulture Science Program of Studies	Small Animal Science Technologies C18H20	Large Animal Science Technologies C18H27	Veterinary Science Technologies C18H21 Lab Science and elective focus credit only for students completing a Veterinary Animal Science Program of Studies	Animal Science Industry Certification	FFA	
Horticulture Science Fairview			Greenhouse Management C18H17	Landscaping and Turf Science C18H16 Satisfies one ine arts credit required for graduation	Commercial Pesticide Industry Certification Tennessee Industry Specific Certification	FFA	

Agribusiness	Agriscience C18H19	Principles of Farm and Agribusiness	Agricultural Business and Finance	FFA	
Page		Management C18H41	C18H11		

## Architecture, Engineering, and Construction

Program of Study	Level 1	Level 2	Level 3		Credential/ Certificatio n	CTSO	Recom nende d Electiv e(s), not ipprov ed for Electiv e Focus
Architecture, Engineering and Design Centennial Franklin Independence Ravenwood	Engineering Design I C17H13	Architectural & Engineering Design II C17H14	Architectural & Engineering Design III C17H10 ** Engineering 2100 t CHS, RHS, PHS & IHS (MTSU) DE Course Code 4071	Engineering Practicum: Engineering Your World	AutoCAD Certified User	SkillsUSA or TSA	

Structural Systems	Fundamentals of Construction C17H15	Structural Systems I C17H26	Structural Systems II C17H27	Construction Practicum C17H22	NCCER Core Curriculum	SkillsUSA	
Fairview					DSHA 10 Industry Certifications		
					ICCER Carpentry Level I Industry Certification		
					ICCER Carpentry Level II		
					OSHA 30 Construction Industry Certifications		

# Arts, Audio/Visual Technology, & Communications

Program of Study	Level 1	Level 2	Level 3	l evel 4	Credential / Certificati on	CTSO	Recommended Elective(s), not approved for Elective Focus
Digital Arts and Design Franklin Independence Ravenwood Renaissance Summit	Digital Arts & Design I C11H06 Fine Art and elective focus credit only for students completing a Digital Arts and Design Program of Studies	C11H05	Digital Arts and Design III C11H16 ** EMC1050 at IHS & SHS (MTSU) DE Course Code 4077 * Dual Credit Opportunity through Nossi * Dual Credit Opportunity through CSCC AP Portfolio Submission for possible AP credit	C11H16 ** EMC1050 at IHS & SHS	Adobe Certified Associate - Creative Suite Apple Certified Pro Adobe Certified Associate Premier Pro	SkillsUSA	
POS Music Industry Audio Production Renaissance	Music Industry Audio Production I 6042 23021	Music Industry Audio Production II 6042 23022	Music Industry Audio Production III 6042 23023		ProTools	SkillsUSA	

Television and Film Production AV Production	Production/A V	Television and Film Production/A V Production	I Production	I Production	
Brentwood	Production I C11H01	II C11H02	III C11H03	III C11H03	
Centennial Fairview Franklin Independence Page Nolensville Ravenwood Summit		011102	* VFP 1060 at BHS, CHS, FHS, FVHS, IHS, PHS,		
			* Dual Credit Opportunity hrough CSCC		

#### **Business Management & Administration**

Program of Study	Level 1	Level 2	Level 3	Level 4	Credential / Certificati on	стѕо	Recommended Elective(s), not approved for Elective Focus
Business Management Brentwood	Computer Applications 5891 * Dual Credit Opportunity through CSCC	Accounting I C12H16 * Dual Credit Opportunity through CSCC	Code 4083	Virtual Enterprise International C12H23 Economics and elective focus credit only for students completing a Business Management & Administration, or Marketing Management Program of Studies or Business & Entrepreneurshi p Practicum C12H35		DECA	

#### Finance

Program of Study	Level 1	Level 2	Level 3	Level 4	Credential / Certificati on	стѕо	Recommended Elective(s), not approved for Elective Focus
Ravenwood /	Accounting I C12H00 *Dual Credit Opportunity hrough CSCC	C29H01	Statistics G02H37 or AP Statistics G02H26		Financial Accounting Certification through Precision	DECA	

#### **Education and Training**

Program of Study	Level 1	Level 2	Level 3		Credential/ Certificatio n	CTSO	Recommended Elective(s), not approved for Elective Focus
Feaching as a Profession K-12 Centennial Fairview	ntroduction to Teaching as a Profession C32H##		reaching as a Profession II C32H02	Teaching as a Profession III C32H26 or Work Based Learning / Internship 6105		FCCLA	
Early Childhood Education Careers Summit	Early Childhood Education Careers I H32H06	Early Childhood Education Careers II C32H07	Early Childhood Education Careers III C32H08	Work Based Learning / Internship <mark>6105</mark>	TECTA Orientation/ Certification CDA Industry Certification	FCCLA	
Early Childhood Education Careers Independence	Early Childhood Education Careers I H32H06	Early Childhood Education Careers II C32H07	Early Childhood Education Careers III C32H08	Teaching as a Profession I C32H01	TECTA Orientation/ Certification CDA Industry Certification	FCCLA	
Early Childhood Education Careers Franklin	Early Childhood Education Careers I H32H06	Early Childhood Education Careers II C32H07	eaching as a Profession I C32H01		TECTA Orientation/ Certification CDA Industry Certification	FCCLA	

## **Hospitality and Tourism**

Program of Study	Level 1	Level 2	Level 3	Level 4	Credential / Certificati on	стѕо	Recommended Elective(s), not approved for Elective Focus
Culinary Arts Franklin Summit	Culinary Arts I C16H06	Culinary Arts II C16H07	Culinary Arts III C16H08	Work Based Learning / Internship 6105	ServSafe Food Manager Industry Certification IBC Card ProStart Serve-Safe	FCCLA	
Culinary Arts Nolensville	Culinary Arts I C16H06 <sup>•</sup> Dual Credit Intro to Hospitality 1030 (CSCC)	Culinary Arts II C16H07 * Dual Credit Sanitation and Food Safety 1400 (CSCC) * Dual Credit tospitality Sales and Marketing 1170 (CSCC)	Culinary Arts III C16H08 Dual Credit Culinary Fabrication 1425 (CSCC) * Dual Credit he Guest Experience 1300 (CSCC)	Supervision in Hospitality Industry 1130 (CSCC)	ServSafe Food Manager Industry Certification ABC Card ProStart Serve-Safe	FCCLA	

#### **Human Services**

Program of Study	Level 1	Level 2	Level 3	Level 4	Credential/ Certification	CTSO	Recommended Elective(s), not approved for Elective Focus
Cosmetology Centennial	I C19H12 * Transfer Hours to Empire Beauty, Hair Academy Franklin, Georgia Career	Cosmetology II C19H14 * Transfer Hours to Empire Beauty, Hair Academy Franklin, Georgia Career Institute, Paul Mitchell	III C19H13 * Transfer Hours to Empire Beauty, Hair Academy Franklin, Georgia Career	IV C19H21	TN Board of Cosmetology & Barbering	SkillsUSA	
Sports Health and Nutrition Science Independence		Nutrition Science and Diet Therapy C19H16 ** DE Enrollment opportunity hrough MTSU (NFS 2220) Satisfies one lab science credit for graduation	Human Services Practicum C19H20 ** DE Enrollment opportunity hrough MTSU COMM 2220)		Tennessee Specific Industry Certification – Dietetics and Nutrition Industry Certification	FCCLA	

#### Information Technology (page 1 of 3)

Program of Study	Level 1	Level 2	Level 3	Level 4	Credential / Certificati on	CTSO	Recommended Elective(s), not approved for Elective Focus
Web Design & Mobile Fechnologie s Tech Certificate Centennial	C10H14 * Dual Credit Opportunity hrough CSCC	* Dual Credit Opportunity hrough CSCC	Semester CITC 2361 Adv. Web Design & Development ** DE Opportunity hrough CSCC Spring Semester CITC 1373	Spring Semester CITC 2372 Mobile Security ** DE Opportunity hrough CSCC		SkillsUSA	* See specific course sequence ending in CSCC Web Design & Mobile Technologies Tech Certificate

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Coding	Coding I C10H14	Coding II C10H15	AP Computer	AP Computer	Comp TIA A+	SkillsUSA	
Ravenwood	* Dual Credit	**INFS 2600	Science Principles	Science Principles			
	Opportunity hrough CSCC	at BHS, FHS, IHS, RHS	G02H44	G02H44	Microsoft Technology		
		(MTSU)	0021111	0021111	Associate		
		DE Course	or	or	Software		
		Code 4113			Development		
			AP	AP	Industry		
			Computer	Computer	Certification		
			Science	Science			
			G02H45	G02H45			
			AP computer				
			Science 3635				
				Math course,			
			AP focus	AP focus			
			credit and information	credit and information			
			technology	technology			
			focus credit	focus credit			
				or			
				or			
				Coding			
				Practicum/			
				Game			
				rogramming			
				C10H08			
Coding/	Coding I	Honors	Honors	AP		SkillsUSA	
Autonomou	C10H14	Coding Practicum I/	Coding Practicum II/	Computer Science			
s Vehicles	Dual Orcal	Autonomous		G02H45			
	Opportunity hrough CSCC		Vehicles	GUZN40			
Brentwood		C10H08	C10H08	AP computer			
Franklin				Science 3635			
				Math course,			
				AP focus			
				credit and information			
				technology			
				focus credit			
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## Information Technology (page 2 of 3)

Coding	Computer Science	Coding I C10H14	Coding II C10H15	AP Computer	CompTIA IT <sup>-</sup> undamental	SkillsUSA	
Brentwood	C10H11	* Dual Credit Opportunity hrough CSCC	at BHS, FHS, IHS, RHS	Science G02H45	s Industry Certification		
			(MTSU) DE Course Code 4113	AP computer Science Math course,	Comp TIA A+		
				AP focus credit and information technology focus credit	Microsoft Technology Associate Software		
				or	Development Industry Certification		
				AP Computer Science			
				Principles G02H44			
				or			
				Honors Programing and Software			
				Development Practicum <mark>5908</mark>			

#### Information Technology (page 3 of 3)

Coding Brentwood	Coding I C10H14 * Dual Credit Opportunity hrough CSCC	AP Computer Science Principles G02H44	Coding II C10H15 ** INFS 2600 at BHS, FHS, IHS, RHS (MTSU) DE Course Code 4113	AP computer Science 3635		SkillsUSA	
				AP focus	Development Industry Certification		

				technology			
				focus credit			
Coding Brentwood	AP Computer Science Principles G02H44	Coding II C10H15 ** INFS 2600 at BHS, FHS, IHS, RHS (MTSU) DE Course Code 4113	AP Computer Science G02H45 AP computer Science 3635 Math course, AP focus credit and information technology focus credit	Honors Programming and Software Development Practicum 5908	Comp TIA A+ Microsoft Technology Associate Software Development Industry Certification	SkillsUSA	
Coding Renaissance	AP Computer Science Principles G02H44	Coding I C10H14	Coding II C10H15	Coding Practicum C10H08			
Cybersecu rity Franklin	Computer Science Foundations C10H11	Cyber I C10H19	Cyber II C10H20	Cyber Practicum C10H21 or Digital Forensics ** Dual Enrollment with CSCC	Cybersecurit y Technical Certificate	SkillsUSA	

## Law, Public Safety, Corrections, & Security

Program of Study	Level 1	Level 2	Level 3	l evel 4	Credential / Certificati on	стѕо	Recommended Elective(s), not approved for Elective Focus
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Criminal Justice (Law Enforcemen t Services) Ravenwood	Criminal Justice I C30H00	DE Course Code 4117 FHS & RHS (MTSU)	Criminal Justice III: nvestigation C30H02 ** CJA 1100, 2200, 2600 DE Course Code 4117 FHS & RHS (MTSU)		Dispatch & Security Certification for Emergency Tele-commun ication Unarmed Security Guard	SkillsUSA	
SPOS Criminal Justice (Law Enforcemen t Services) Centennial	Criminal Justice I C30H00	Criminal Justice II C30H01	C30H02 ** or Networking I DE Course Code 4114	Criminal Justice III: nvestigation C30H02 ** or Networking I DE Course Code 4114 & Cyber Security DE Course Code 4119 ** DE CSCC	for Emergency ēle-commun ication	SkillsUSA	
Pre-Law Franklin	Pre-Law I C30H08	Pre-Law II C30H09	Pre-Law III C30H10	Pre-Law Practicum C30H19 or AP U.S. Government and Politics C04H26		SkillsUSA	

#### Marketing (page 1 of 3)

Program of Study	Level 1	Level 2	Level 3	Level 4	Credential / Certificati on	стѕо	Recommended Elective(s), not approved for Elective Focus
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Marketing Managemen t Centennial Summit	Vlanagement , I Principles C31H00 * Dual Credit Opportunity hrough CSCC	Vanagement Principles II: Advanced Strategies C31H01	Event Planning and Management C16H12		DECA	
Marketing Managemen t Franklin	Vanagement , I Principles C31H00 * Dual Credit Opportunity hrough CSCC	Marketing and Janagement Principles II: Advanced Strategies C31H01 * Dual Credit Opportunity hrough CSCC	& Analytics C31H02	Advertising & Public Relations C31H03 Work-Based Learning: Career Practicum <mark>61</mark>	DECA	

Marketing Managemen t Independence	Vanagement I Principles C31H00	Marketing and Vanagement Principles II: Advanced Strategies C31H01 * Dual Credit	or <mark>Entrepreneur</mark>		DECA	
	hrough CSCC	Opportunity hrough CSCC	ship 5934 * Dual Credit Opportunity hrough CSCC <i>Economics</i> <i>credit for</i> <i>students</i> <i>completing</i> <i>any CTE</i> <i>Program of</i> <i>Study</i>			

#### Marketing (page 2 of 3)

t Page	Vanagement I Principles C31H00 * Dual Credit Opportunity hrough CSCC <i>Economics</i> <i>credit for</i> <i>students</i>	and Management Principles II: Advanced Strategies C31H01	Public Relations C31H03	Entrepreneur ship C31H05 * Dual Credit Opportunity hrough CSCC <i>Economics</i> <i>credit for</i> <i>students</i> <i>completing</i> <i>any CTE</i> <i>Program of</i>	DECA	
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<b>Marketing</b> Ravenwood	-		-	Retail Operations C31H04 * Dual Credit Opportunity hrough CSCC Economics credit for students completing any CTE Program of Study		
<b>Marketing</b> Nolensville	Marketing and Management I Principles C31H00 <sup>t</sup> Dual Credit Opportunity through CSCC <i>Economics</i> <i>credit for</i> <i>students</i> <i>completing</i> <i>any</i> CTE <i>Program of</i> <i>Study</i>	II: Advanced Studies	Advertising/ Public Relations C31H03 Economics credit for students completing any CTE Program of Study	Learning Career Practicum <mark>6105</mark>	DECA	

## Marketing (page 3 of 3)

Entrepreneurship Brentwood	Marketing and Management I Principles C31H00 * Dual Credit Opportunity through CSCC Economics credit for students completing any CTE Program of Study	Entrepreneurship C31H05 * Dual Credit Opportunity through CSCC Economics credit for students completing any CTE Program of Study	Business & Entrepreneurship Practicum C12H35		DECA	
Entrepreneurship and Innovation Center The EIC is located at Franklin High School Annex	Introduction to Entrepreneurship C31H23	Entrepreneurship C31H05	EIC Practicum/ Work-Based _earning: Career Practicum C12H35			

#### Medical Sciences (page 1 of 2)

Program of Study	Level 1	Level 2	Level 3	Level 4	Credential / Certificati on		Recommended Elective(s), not approved for Elective Focus
Diagnostic Services / Pre-Med Page	Health Science Education C14H14	Medicine	Standard or Honors Anatomy and Physiology G03H31 or C14H09	ar Services C14H18 PHS	Certified EKG Technician Industry Certification	HOSA	
			Lab Science and elective focus credit only for students completing a				

[]			Medical				
			Science				
			Program of				
			Studies				
Diagnostic	Health	Diagnostic	Honors	Honors	Certified	HOSA	
Services/	Science	Medicine	Anatomy and	Nursing	Nursing		
Pre-Med	Education	C14H12	Physiology	Education	Assistant		
Fre-Ivieu	C14H14		G03H31 or C14H09	C14H16	Industry Certification		
Independence			011100	or	Contineducin		
			Lab Science				
			and elective	Clinical			
			focus credit only for	Internship			
			students	C14H11			
			completing a				
			Medical				
			Science				
			Program of Studies				
			Sidules				

## Medical Sciences (page 2 of 2)

Pre-Med / Biomedical Science (PLTW) Ravenwood Franklin	Honors Principles of Biomedical Science 23101 (Must of had Biology or aking it at the same time) BioSTEM I (C21H07)	Honors Human Body Systems 23102 Lab Science and elective focus credit only for students completing the PLTW Biomedical Science Program of Studies BioSTEM II (C21H08)	Honors Medical Interventions BioSTEM III (C21H09)	WBL BioSTEM Practicum (C21H10)		HOSA	AP Biology AP Psychology AP Chemistry 3225 AP Physics 3238
Nursing (Therapeutic Nursing Services) Centennial Nolensville Page Ravenwood	Health Science Education 5998	Honors Medical Therapeutics 5999 Certified Clinical Medical Assistant Industry Certification (if Medical Fherapeutics is Followed by Clinical Internship)	Honors Anatomy and Physiology 3251 Lab Science and elective focus credit only for students completing a	Clinical Internship 5993 or Honors Nursing Education 6000	Certified Clinical Medical Assistant Industry Certification Certified Nursing Assistant Industry Certification	HOSA	

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Sport and Human Performance	Health Science Education	Rehabilitation	Standard or Honors Anatomy and	Clinical Internship 5993	Certified Personal Trainer	HOSA	
Independence Fairview Nolensville Summit Page Ravenwood	5998 FvHS	5990 IHS Honors Anatomy and Physiology FvHS	Physiology PHS Honors Anatomy and Physiology IHS, NHS,RHS	FvHS,RHS	Industry Certification		
			Honors Rehabilitation Careers 5990 IHS FvHS RHS Lab Science and elective focus credit only for students completing a Medical Science Program of Studies	Certified Personal Trainer Industry Certification (if Exercise Science is Followed by Clinical Internship)			

#### Science, Technology, Engineering, &

## Mathematics (page 1 of 2)

Program of Study	Level 1	Level 2	Level 3	l evel 4	Credential / Certificati on	стѕо	Recommended Elective(s), not approved for Elective Focus
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STEM Research: Mechanical Engineering Brentwood Franklin	Coding I 6098	Honors Engineering Through Service Learning 5921 or AP Computer Science 3635	AP Physics 3238	Honors STEM Research 6147	TSA	AP Environment al Science 3236
STEM Research: Chemical Engineering Brentwood Franklin	Coding I 6098	Honors Engineering Through Service Learning 5921 or AP Computer Science 3635	AP Chemistry 3225	Honors STEM Research 6147	TSA	AP Environment al Science 3236
STEM Research: Biomedical Engineering Brentwood	Coding I 6098	Honors Engineering Through Service Learning 5921 or AP Computer Science 3635	AP Biology 3217	Honors STEM Research 6147	TSA	AP Environmental Science 3236

Engineering by Design	oundations of Technology (EBD) 5917	Technological Design (EBD) 5885	Advanced Design Applications (EBD)	Work-Based Learning: Career Practicum	Autodesk Certified User	TSA	
Page	5517		5920	6105			

#### Science, Technology, Engineering, &

#### Mathematics (page 2 of 2)

Engineering Project Lead the Way Page Summit	Honors ntroduction to Engineering Design (PLTW) 6054		Electronics (PLTW) 6053	Honors Engineering Design and Development (PLTW) 6059 ** ENGR 2100 (MTSU) DE Course Code 4071 or Aero (PLTW)	Autodesk Certified User	SkillsUSA or TSA	
Engineering and Unmanned Aerial Systems (UAS) Nolensville	Principles of Engineering Technology 5924	Engineering Design I 6139	Engineering Design II 6140		Certification FAA Part 107		

Technology (Robotics) Ravenwood	Principles of Engineering Technology 5924		Robotics & Automated Systems 3153	Engineering Practicum or		
		Computer Science		Engineering Your World		
				or Physics		

#### Transportation, Distribution, & Logistics

Program of Study	Level 1 L	_evel 2	Level 3	l evel 4	Credential / Certificati on	стѕо	Recommended Elective(s), not approved for Elective Focus
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Automotive Collision Repair Franklin	Collision Repair: Non- Structural 6062	Painting & Refinishing 6063 Automotive Service Excellence Student	Collision Repair: Damage Analysis, Estimating, & Customer Service 6149	I-CAR Refinish Technician ProLevel 1 I-CAR Non- Structural Technician ProLevel 1	SkillsUSA	Internships at level 3 and level 4
		Certification: Painting and Refinishing Industry Certification		Automotive Service Excellence Student Certification: Ionstructural Analysis/Rep air Industry Certification Automotive Service Excellence Student		
				Certification: Paining and Refinishing Industry Certification		