



TENNESSEE DEPARTMENT OF
EDUCATION
DIVISION OF CAREER AND TECHNICAL EDUCATION

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 http://www.tn.gov/education/cte/Career_Clusters/Career_Clusters.shtml.

Williamson County Schools
CCTE Programs of Study
2017-2018

This guide indicates Programs of Study (POS) being offered in WCS as well as certifications/credentials that students may obtain through 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
- Underlined courses qualify as a Capstone class
- **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**

Advanced Manufacturing

Program of Study	Level 1	Level 2	Level 3	Level 4	Credential / Certification	CTSO	Recommended Elective(s), not approved for Elective Focus
Mechatronics CSCC AiiT A.A.S Fairview	Principles of Manufacturing 5922	Digital Electronics 5925	Mechatronics I 6156 or Mechatronics Dual Enrollment (CSCC) 4063 **	Mechatronics II 6157 or Mechatronics Dual Enrollment (CSCC) 4063 ** or <u>Manufacturing Practicum</u> 5926		SkillsUSA or TSA	See specific course sequence ending in CSCC AiiT A.A.S Degree

Agriculture, Food, & Natural Resources

Program of Study	Level 1	Level 2	Level 3	Level 4	Credential / Certification	CTSO	Recommended Elective(s), not approved for Elective Focus
Veterinary and Animal Science Page	Agriscience 5957 <small>Lab Science and elective focus credit <u>only</u> for students completing a Veterinary and Animal Science or Horticulture Science Program of Studies</small>	Small Animal Science 5958	Large Animal Science 6116	Veterinary Science 5961 <small>Lab Science and elective focus credit <u>only</u> for students completing a Veterinary Animal Science Program of Studies</small>		FFA	
Horticulture Science Fairview	Agriscience 5957 <small>Lab Science and elective focus credit <u>only</u> for students completing a Veterinary and Animal Science or Horticulture Science Program of Studies</small>	Principles of Plant Sciences and Hydroculture 6119	Greenhouse Management 5954	Landscaping and Turf Science 5951		FFA	

Architecture & Construction

Program of Study	Level 1	Level 2	Level 3	Level 4	Credential / Certification	CTSO	Recommended Elective(s), not approved for Elective Focus
Architecture, Engineering and Design Centennial Franklin Independence Page Ravenwood	Architectural & Engineering Design I 6037 <small>Not at PHS</small>	Architectural & Engineering Design II 6039	Architectural & Engineering Design III 5927 ** <small>**Engineering 2100 at CHS, RHS, PHS & IHS (MTSU) DE Course Code 4071</small>	<u>Engineering Practicum: Engineering Your World</u> 6141 ** <small>**Engineering 1100 at RHS (MTSU) DE Course Code 4071</small>	AutoCAD Certified User (\$60.75)	SkillsUSA Or TSA	
Structural Systems Fairview	Fundamentals of Construction 6073	Structural Systems I 6164	Structural Systems II 6165	<u>Construction Practicum</u> <u>6160</u>	NCCER Carpenter Level 1 (Free to Student) OSHA 10 (\$69)	SkillsUSA	

Arts, Audio/Visual Technology, & Communications

Program of Study	Level 1	Level 2	Level 3	Level 4	Credential / Certification	CTSO	Recommended Elective(s), not approved for Elective Focus
SPOS Digital Arts and Design Renaissance	Creativity in the 21 st Century 6042	Digital Arts and Design I 6084 <i>Fine Art and elective focus credit <u>only</u> for students completing a Digital Arts and Design Program of Studies</i>	Digital Arts and Design II 6086	Digital Arts and Design III 6087		SkillsUSA	
Digital Arts and Design Franklin Independence Ravenwood Summit	Digital Arts and Design I 6084 <i>Fine Art and elective focus credit <u>only</u> for students completing a Digital Arts and Design Program of Studies</i>	Digital Arts and Design II 6086	Digital Arts and Design III 6087 ** **EMC1050 at IHS & SHS (MTSU) DE Course Code 4077 AP Portfolio Submission for possible AP credit	<u>Applied Arts Practicum</u> <u>6158</u>	Adobe Certified Associate - Creative Suite (\$97) Apple Certified Pro (\$97) Adobe Certified Associate - Premier Pro (\$97)	SkillsUSA	
Fashion Design Ravenwood	Foundations of Fashion 6120 <i>Fine Art and elective focus credit <u>only</u> for students completing a Fashion Design Program of Studies</i>	Fashion Design 6008	Advanced Fashion Design 6009			FCCLA	
SPOS Music Industry Audio Production Renaissance	Creativity in the 21 st Century 6042	Music Industry Audio Production I 6042	Music Industry Audio Production II 6042	Music Industry Audio Production III 6042	ProTools (\$25)	SkillsUSA	
Television and Film Production / AV Production Brentwood Centennial Fairview Franklin Independence Page Nolensville Ravenwood Summit	Television and Film Production / AV Production I 6049	Television and Film Production / AV Production II 6050	**Television and Film Production / AV Production III 6083 **EMC 1060 at BHS, CHS, FHS, FvHS, IHS, PHS, RHS & SHS (MTSU) DE Course Code 4078			SkillsUSA Or TSA	

Business Management & Administration

Program of Study	Level 1	Level 2	Level 3	Level 4	Credential / Certification	CTSO	Recommended Elective(s), not approved for Elective Focus
Business Management Brentwood	Computer Applications 5891	Accounting I 5910	Business Management 5889 ** <small>**BCED 1400 at BHS (MTSU) DE Course Code 4083</small>	Virtual Enterprise International 5900 <small>Economics and elective focus credit <u>only</u> for students completing a Business Management & Administration, or Marketing Management Program of Studies</small> or <u>Business & Entrepreneurship Practicum</u> 6159		DECA	

Education & Training

Program of Study	Level 1	Level 2	Level 3	Level 4	Credential / Certification	CTSO	Recommended Elective(s), not approved for Elective Focus
Teaching as a Profession K-12 Centennial Fairview	Fundamentals of Education 6123	Teaching as a Profession I 6010	Teaching as a Profession II 6125	Teaching as a Profession III 6126 or <u>Work Based Learning / Internship</u> 6105		FCCLA	
Early Childhood Education Careers Franklin Independence Summit	Early Childhood Education Careers I 6015	Early Childhood Education Careers II 6016	Early Childhood Education Careers III 6017	Teaching as a Profession I 6010	TECTA Orientation/ Certification	FCCLA	

Finance

Program of Study	Level 1	Level 2	Level 3	Level 4	Credential / Certification	CTSO	Recommended Elective(s), not approved for Elective Focus
Accounting Ravenwood	Accounting I 5910	Accounting II 5911	Statistics 3136 Or AP Statistics 3129			DECA	

Hospitality & Tourism

Program of Study	Level 1	Level 2	Level 3	Level 4	Credential / Certification	CTSO	Recommended Elective(s), not approved for Elective Focus
Culinary Arts Franklin Nolensville Summit	Culinary Arts I 5979	Culinary Arts II 5980	Culinary Arts III 5981		ABC Card (\$85) ProStart (\$20-40) Serve-Safe (\$36)	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	*Cosmetology I 5983 <small>Transfer Hours to Empire Beauty, Hair Academy Franklin, Georgia Career Institute, Paul Mitchell</small>	*Cosmetology II 5986 <small>Transfer Hours to Empire Beauty, Hair Academy Franklin, Georgia Career Institute, Paul Mitchell</small>	*Cosmetology III 5984 <small>Transfer Hours to Empire Beauty, Hair Academy Franklin, Georgia Career Institute, Paul Mitchell</small>	*Cosmetology IV TBD <small>Transfer Hours to Empire Beauty, Hair Academy Franklin, Georgia Career Institute, Paul Mitchell</small>	Accrue state board hours for post-secondary credit	SkillsUSA	
Sports Health and Nutrition Science Independence	Nutrition Across the Lifespan 6005	Nutrition Science and Diet Therapy 6007	<u>Human Services Practicum</u> 6138			FCCLA	

Information Technology (page 1 of 2)

Program of Study	Level 1	Level 2	Level 3	Level 4	Credential / Certification	CTSO	Recommended Elective(s), not approved for Elective Focus
Apps Web Design Renaissance	**Web Foundations 6100 <small>DE Opportunity through TCAT Nashville</small>	**Coding I 6098 <small>DE Opportunity through TCAT Nashville</small>	**Coding II 6099 <small>DE Opportunity through TCAT Nashville</small>			SkillsUSA	Creativity in the 21 st Century 6042
Networking Systems Independence	Computer Science Foundations 6095	Computer Systems 6094	Honors Cabling and Internetworking 6093 Or Networking 6097		A+ (\$178) Cisco (\$150) Net + (\$253)	SkillsUSA	
Coding Ravenwood	Coding I 6098	Coding II 6099 <small>**INFS 2600 at BHS, FHS, IHS, RHS (MTSU) DE Course Code 4113</small>	AP Computer Science Principles 3634 Or AP Computer Science 3635 <small>*Math course, AP focus credit and information technology focus credit <u>only</u> for students completing an Information Technology Program of Studies</small>	AP Computer Science Principles 3634 Or AP Computer Science 3635 or Coding Practicum/ Game Programming 5908 <small>*Math course, AP focus credit and information technology focus credit <u>only</u> for students completing an Information Technology Program of Studies</small>			
Coding/ Autonomous Vehicles Franklin Independence	Coding I 6098	Honors Coding Practicum I/ Autonomous Vehicles 5908	Honors Coding Practicum II/ Autonomous Vehicles 5908	AP Computer Science 3635 <small>*Math course, AP focus credit and information technology focus credit <u>only</u> for students completing an Information Technology Program of Studies</small>			

Information Technology (page 1 of 2)

Program of Study	Level 1	Level 2	Level 3	Level 4	Credential / Certification	CTSO	Recommended Elective(s), not approved for Elective Focus
Coding Independence Page	Coding I 6098	Coding II 6099 <small>**INFS 2600 at BHS, FHS, IHS, PHS, RHS (MTSU) DE Course Code 4113</small>	AP Computer Science Principles 3634 Or AP Computer Science 3635 <small>*Math course, AP focus credit and information technology focus credit <u>only</u> for students completing an Information Technology Program of Studies</small>	AP Computer Science 3635 <small>*Math course, AP focus credit and information technology focus credit <u>only</u> for students completing an Information Technology Program of Studies</small> Or AP Computer Science Principles 3634	Certified Internet Webmaster (CIW)	Skills USA Or TSA	
Coding Brentwood Nolensville Summit	Computer Science Foundations 6095	Coding I 6098	Coding II 6099 <small>**INFS 2600 at BHS, FHS, IHS, RHS (MTSU) DE Course Code 4113</small>	AP Computer Science 3635 Or AP Computer Science Principles 3634 Or Honors Programing and Software Development Practicum 5908 <small>*Math course, AP focus credit and information technology focus credit <u>only</u> for students completing an Information Technology Program of Studies</small>		Skills USA	
WIT Academy Coding Centennial DE=Dual Enrollment (CSCC)	Coding I 6098 Or Robotics <small>DE Course Code 4113</small> & Mobile App Design <small>DE Course Code 4113</small> **	Web Foundations 6100 Or Robotics <small>DE Course Code 4113</small> & Mobile App Design <small>DE Course Code 4113</small> **	AP Computer Science Principles 3634 Or AP Computer Science 3635 <small>*Math course, AP focus credit and information technology focus credit <u>only</u> for students completing an Information Technology Program of Studies</small> Or Robotics <small>DE Course Code 4113</small> & Mobile App Design <small>DE Course Code 4113</small> ** Or Networking I <small>DE Course Code 4114</small> & Cyber Security <small>DE Course Code 4119</small> **	AP Computer Science Principles 3634 Or AP Computer Science 3635 <small>*Math course, AP focus credit and information technology focus credit <u>only</u> for students completing an Information Technology Program of Studies</small> Or Networking I <small>DE Course Code 4114</small> & Cyber Security <small>DE Course Code 4119</small> ** or Robotics <small>DE Course Code 4112</small> & Mobile App Design <small>DE Course Code 4113</small> ** Or Web Page Development & Design <small>DE Course Code 4115</small> **		Skills USA	

Law, Public Safety, Corrections, & Security

Program of Study	Level 1	Level 2	Level 3	Level 4	Credential / Certification	CTSO	Recommended Elective(s), not approved for Elective Focus
Criminal Justice (Law Enforcement Services) Franklin Independence Ravenwood	Criminal Justice I 5987	*Criminal Justice II 5988 ** <small>CJA 1100, 2200, 2600 DE Course Code 4117 IHS & RHS (MTSU)</small>	Criminal Justice III: Investigation 5989 ** <small>CJA 1100, 2200, 2600 DE Course Code 4117 IHS & RHS (MTSU)</small>		Dispatch & Security Certification for Emergency Telecommu- nication (\$50) Unarmed Security Guard (\$70)	SkillsUSA	
SPOS Criminal Justice (Law Enforcement Services) Centennial	Criminal Justice I 5987	*Criminal Justice II 5988	Criminal Justice III: Investigation 5989 ** Or Networking I <small>DE Course Code 4114</small> & Cyber Security <small>DE Course Code 4119 ** (DE CSCC)</small>	Criminal Justice III: Investigation 5989 ** Or Networking I <small>DE Course Code 4114</small> & Cyber Security <small>DE Course Code 4119 ** (DE CSCC)</small>	Dispatch & Security Certification for Emergency Telecommu- nication (\$50) Unarmed Security Guard (\$70)	SkillsUSA	

*State Wide Dual Credit pilot for Criminal Justice at FHS and CHS

Marketing

Program of Study	Level 1	Level 2	Level 3	Level 4	Credential / Certification	CTSO	Recommended Elective(s), not approved for Elective Focus
Marketing Management Centennial	Marketing and Management I Principles 5931 <i>Economics and elective focus credit <u>only</u> for students completing a Marketing Management Program of Studies</i>	Marketing and Management Principles II: Advanced Strategies 5932	Event Planning and Management 6168	Entrepreneurship 5934 <i>Economics and elective focus credit <u>only</u> for students completing a Marketing Management Program of Studies</i>		DECA	
Marketing Management Franklin	Marketing and Management I Principles 5931 <i>Economics and elective focus credit <u>only</u> for students completing a Marketing Management Program of Studies</i>	Event Planning and Management 6168	Work-Based Learning: Career Practicum 6105			DECA	
Marketing Management Independence	Marketing and Management I Principles 5931 <i>Economics and elective focus credit <u>only</u> for students completing a Marketing Management Program of Studies</i>	Marketing and Management Principles II: Advanced Strategies 5932	Retail Operations 5938 Or Entrepreneurship 5934 <i>Economics and elective focus credit <u>only</u> for students completing a Marketing Management Program of Studies</i>			DECA	
Marketing Management Page Summit	Marketing and Management I Principles 5931 <i>Economics and elective focus credit <u>only</u> for students completing a Marketing Management Program of Studies</i>	Marketing and Management Principles II: Advanced Strategies 5932	Advertising & Public Relations 5936	Entrepreneurship 5934 <i>Economics and elective focus credit <u>only</u> for students completing a Marketing Management Program of Studies</i>		DECA	
Marketing Management Ravenwood	Marketing and Management I Principles 5931 <i>Economics and elective focus credit <u>only</u> for students completing a Marketing Management Program of Studies</i>	Marketing and Management Principles II: Advanced Strategies 5932	Event Planning & Management 6168			DECA	

<p>Entrepreneurship</p> <p>Brentwood Nolensville Ravenwood</p>	<p>Marketing and Management I Principles 5931</p> <p>Economics and elective focus credit <u>only</u> for students completing a Marketing Management Program of Studies</p>	<p>Entrepreneurship 5934</p> <p>Economics and elective focus credit <u>only</u> for students completing a Marketing Management Program of Studies</p>	<p>Virtual Enterprise International 5900</p> <p>Economics and elective focus credit <u>only</u> for students completing a Business Management & Administration, or Marketing Management Program of Studies</p> <p>Or</p> <p><u>Business & Entrepreneurship Practicum</u> 6159</p>			<p>DECA</p>	
<p>Entrepreneurship</p> <p>Franklin</p>	<p>Marketing and Management I Principles 5931</p> <p>Economics and elective focus credit <u>only</u> for students completing a Marketing Management Program of Studies</p>	<p>Entrepreneurship 5934</p> <p>Economics and elective focus credit <u>only</u> for students completing a Marketing Management Program of Studies</p>	<p>Work-Based Learning: Career Practicum 6105</p>			<p>DECA</p>	

Medical Sciences (page 1 of 2)

Program of Study	Level 1	Level 2	Level 3	Level 4	Credential / Certification	CTSO	Recommended Elective(s), not approved for Elective Focus
Diagnostic Services/ Pre-Med Franklin Page	Health Science Education 5998	Honors Anatomy and Physiology 3251 <i>Lab Science and elective focus credit only for students completing a Medical Science Program of Studies</i>	Diagnostic Medicine 5994	<u>Clinical Internship</u> 5993 Cardiovascular Services 6131 PHS		HOSA	
Diagnostic Services/ Pre-Med Independence	Health Science Education 5998	Diagnostic Medicine 5994	Honors Anatomy and Physiology 3251 <i>Lab Science and elective focus credit only for students completing a Medical Science Program of Studies</i>	<u>Honors Nursing Education</u> 6000 or <u>Clinical Internship</u> 5993	Certified EKG Technician (\$105)	HOSA	
Emergency Services Fairview Page Ravenwood	Health Science Education 5998	Honors Anatomy & Physiology 5991 FvHS <i>Lab Science and elective focus credit only for students completing a Medical Science Program of Studies</i> Anatomy & Physiology 3251 PHS & RHS <i>Lab Science and elective focus credit only for students completing a Medical Science Program of Studies</i>	Honors Emergency Medical Services 5995	<u>Clinical Internship</u> 5993	Certified Clinical Medical Assistant (\$149) First Responder (\$115)	HOSA	
SPOS Pending 2017-2018 approval Pre-Med / Biomedical Science (PLTW) Ravenwood	Honors Principles of Biomedical Science	Honors Anatomy and Physiology 3251 <i>Lab Science and elective focus credit only for students completing a Medical Science Program of Studies</i> or Honors Human Body Systems <i>Lab Science and elective focus credit only for students completing the PLTW Biomedical Science Program of Studies</i>	AP Biology 3217 or Honors Medical Interventions	Honors Biomedical Innovations or Honors Medical Interventions		HOSA	AP Chemistry 3225 AP Physics 3238

Medical Sciences (page 2 of 2)

Program of Study	Level 1	Level 2	Level 3	Level 4	Credential / Certification	CTSO	Recommended Elective(s), not approved for Elective Focus
Therapeutic Clinical Services Centennial	Health Science Education 5998	Honors Medical Therapeutics 5999	Pharmacological Science 6133	Honors Anatomy and Physiology 3251 <small>Lab Science and elective focus credit <u>only</u> for students completing a Medical Science Program of Studies</small> Or <u>Clinical Internship 5993</u>	Certified Clinical Medical Assistant (\$149) Certified Patient Care Technician (\$149)	HOSA	
Nursing (Therapeutic Nursing Services) Centennial Nolensville Page Ravenwood	Health Science Education 5998	Honors Medical Therapeutics 5999	Honors Anatomy and Physiology 3251 <small>Lab Science and elective focus credit <u>only</u> for students completing a Medical Science Program of Studies</small> or <u>Honors Nursing Education 6000</u>	<u>Clinical Internship 5993</u> Or <u>Honors Nursing Education 6000</u>	Certified Clinical Medical Assistant (\$149) Certified Nursing Assistant (\$80) Certified Patient Care Technician (\$149)	HOSA	
Exercise Physiology / Sports Medicine Independence Fairview Summit	Health Science Education 5998	Honors Rehabilitation Careers 5990	Honors Anatomy and Physiology 5991 FvHS <small>Lab Science and elective focus credit <u>only</u> for students completing a Medical Science Program of Studies</small> Honors Anatomy and Physiology 3251 IHS <small>Lab Science and elective focus credit <u>only</u> for students completing a Medical Science Program of Studies</small>	<u>Clinical Internship 5993</u> <small>SHS</small> Exercise Science 6170 <small>IHS & FvHS</small>			

Science, Technology, Engineering, & Mathematics

Program of Study	Level 1	Level 2	Level 3	Level 4	Credential / Certification	CTSO	Recommended Elective(s), not approved for Elective Focus
SPOS Pending 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 Environmental Science 3236
SPOS Pending 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 Environmental Science 3236
SPOS Pending STEM Research: Biomedical Engineering Brentwood Franklin	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 Page	Foundations of Technology (EBD) 5917	Technological Design (EBD) 5885	Advanced Design Applications (EBD) 5920 or Engineering Design (EBD) 5921	Advanced Design Applications (EBD) 5920 or Engineering Design (EBD) 5921	Autodesk Certified User (\$97)	TSA	
Engineering Project Lead the Way Summit	Honors Introduction to Engineering Design (PLTW) 6054	Honors Principles of Engineering (PLTW) 6052 <small>Lab science and elective focus credit <i>only</i> for students completing an Engineering Project Lead the Way Program of Studies</small>	Honors Civil Engineering (PLTW) 6056 and Honors Digital Electronics (PLTW) 6053	Honors Engineering Design and Development (PLTW) 6059 ** <small>ENGR2100 (MTSU) DE Course Code 4071</small>	Autodesk Certified User (\$97)	SkillsUSA or TSA	
SPOS Unmanned Aerial Systems (UAS) Nolensville	Principles of Engineering Technology 5924	Honors Unmanned Aerial Systems I 5930	Honors Unmanned Aerial Systems II	<u>Honors Capstone Unmanned Aerial Systems / TV Film</u>		****	

Transportation, Distribution, & Logistics

Program of Study	Level 1	Level 2	Level 3	Level 4	Credential / Certification	CTSO	Recommended Elective(s), not approved for Elective Focus
Automotive Collision Repair Franklin	Introduction to Collision Repair 6172	Collision Repair: Non-Structural 6062	Collision Repair: Painting & Refinishing 6063	Collision Repair: Damage Analysis, Estimating, & Customer Service 6149	ICAR	SkillsUSA	Service King Internships at level 3 and level 4

Middle School

Program of Study	Level 1	Level 2	Level 3	Level 4	Credential / Certification	CTSO	Recommended Elective(s), not approved for Elective Focus
Engineering Spring Station Middle	Exploring Engineering (EP) 0982						
STEM Fairview Middle	Exploring Technology (EBD) 6047	Inventions and Innovations (EBD) 0782	Technological Systems (EBD) 0882			TSA	Principles of Manufacturing 5922
TV/Film BMS SMS WMS	TV/Film						