



2023-2024 Pathways

Keller ISD Career and Technical Education Department



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Assurance of Non-Discrimination

Keller ISD does not discriminate on the basis of race, religion, color, national origin, sex, disability, or age in providing education services, activities, and programs, including vocational programs, and also provides equal access to the Boy Scouts and other designated youth groups, in accordance with Title VI of the *Civil Rights Act of 1964*, as amended; Title IX of the *Educational Amendments of 1972*; Section 504 of the *Rehabilitation Act of 1973*, as amended; *Age Discrimination Act of 1975*; Title II of the *Americans with Disabilities Act*; and the *Boy Scouts of America Equal Access Act*

Seamlessly transitioning your education into a career.....

Keller ISD is committed to focusing on cutting edge, rigorous, and relevant Career and Technical Education (CTE) that prepares our students for a wide range of high-wage, high-demand careers. Our goal is to prepare our graduates to pursue a future of their choosing and successfully enter our global society. In order to help with this goal, KISD opened its first career-focused high school to meet the needs of our 21st Century students.

The Keller Center for Advanced Learning (KCAL) opened during the 2016-2017 school year and now has approximately 4,000 students from around the district in attendance in a variety of innovative CTE programs. In addition to these programs, several CTE pathways are available at all our comprehensive high schools that students may choose from as well.

It is important that we help our students get on the right path early so that they can continue in that path towards graduation and into the next stages of their lives. To ensure that our students make wise choices, we have strengthened our middle school Career Exploration curriculum. In combination with the House Bill 5 modules, our 8th grade students attend KCAL tours, the CTE Expo in November, and high school showcases. We want to ensure that our 8th grade students and parents are knowledgeable about all the choices they will have as high school begins.

Purpose.....

The purpose of this book is to help students and parents make informed decisions about planning for the future. This guide provides information about the high school graduation requirements as well as the courses that are taken each of the next four years for that particular pathway.

A variety of co-curricular options are available to students. The most popular option for CTE students is the Career and Technical Student Organizations (CTSOs). Keller ISD students compete in district, state, and national levels of competition. Approximately 2,000 students participate and compete in CTOSs, such as BPA, HOSA, FCCLA, TSA, FBLA, TAFE, SkillsUSA, FFA, DECA, Robotics, Automotive Technology Club, and Solar Car. Descriptions of these CTOSs are located on the final pages of this guide.

On behalf of the entire KISD Career and Technical Education team, we thank you for your support of our programs across the district. Certainly, our commitment to an intentionally exceptional learning experience for each KISD student is strengthened by our work with our outstanding district leadership team and our community partners.

Sincerely,

Dr. Robert Wright, CTE Director

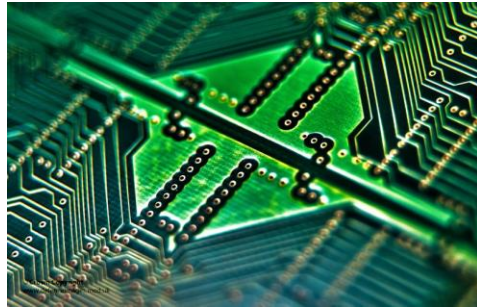


**Center for Advanced Learning
Keller Independent School District**



Pathways available only at KCAL:

Architectural Design
Automotive
Construction Technology
Cosmetology
Cybersecurity
Electrical Technology
HVAC (Heating, Ventilation, and Air Conditioning)
Networking Systems/Maintenance
Plant Science
Plumbing Technology
Programming & Software Development
Veterinary Studies
Welding



Pathways that finish advanced courses at KCAL:

Culinary Arts
Design & Multimedia Arts
Digital Communications
Engineering
Health Sciences: Biomedicine, Clinical Rotations, Emergency Medical Technician (EMT), Nursing (CNA), Patient Care Technician (PCT), Pharmacy Technician, Medical Assistant
Law Enforcement: Police
Legal Studies



Pathways only available at High School campuses:

Accounting and Financial Services

*Business Communications: Debate, Broadcast Journalism, Newspaper, Yearbook

Business Management

Health Science: Exercise Science and Sports Medicine

Interior Design

Fashion Design

Marketing

*ROTC

*STEM Science: Biology, Chemistry, Environmental Science, Physics, Space Science

*STEM Math

Teaching and Training



*Non-CTE Pathways

College and Career Readiness

Career and Technical Education fosters a culture of college and career readiness by helping students understand how education and training connect to the world of work.

To earn an endorsement, students are required to complete a coherent sequence of four or more credits that consist of three or more courses in the same career cluster.

Arts & Humanities: Coursework that is centered around artistic and well-rounded humanities interests.

Business & Industry: Highly varied occupations in both service and manufacturing industries. Requires 4 CTE credits, 2 of which must be advanced.

Public Services: Service-oriented occupations for both private and public sectors. Requires 4 CTE credits, 2 of which must be advanced.

Science, Technology, Engineering & Math (S.T.E.M.): Rigorous coursework and occupations centered around applied science and mathematics, including a variety of engineering fields.

Multi-Disciplinary: Students complete 4 advanced courses from within one endorsement or among multiple endorsements.

Keller ISD High School Graduation Plan Overview

There is one graduation plan approved by the State of Texas and Keller Independent School District. The State of Texas Foundation High School Program requires a total of 22 units of credits. The default plan for Keller ISD students is the Distinguished Level of Achievement Plan, which includes one endorsement choice.

Foundation High School Program (FHSP) + Endorsement 26 Credits

English 4 credits	English I	English II	English III	English IV
Math 4 credits	Algebra I	Geometry	Algebra II	Endorsement Math
Science 4 credits	Biology	IPC, Physics, OR Chemistry	Advanced Science	Endorsement Science
Social Studies 4 credits	World Geography	World History	US History	Government/ Economics
World Languages 2 credits	2 credits of the same world language			
Physical Education	1 credit			
Fine Arts	1 credit			
21 st Century Skills .5 credit	Professional Communications OR Entrepreneurship			
Electives	5.5 credits (Endorsement electives) See Course Selection Sheets for completing the 4-year plan			

Distinguished Level of Achievement & Performance Acknowledgments

Distinguished Level of Achievement:

- A total of four credits in math, including Algebra II
- A total of four credits in science; and
- Requirements for at least one endorsement

Performance Acknowledgements:

For outstanding performance

- In a dual credit course
- In bilingualism and bi-literacy
- On an AP test or IB exam
- On the PSAT, ACT, or SAT test
- For earning a nationally or internationally recognized business or industry certification or license.

Earning an Endorsement

Prior to entering 9th grade, students are required to declare a chosen program of study, or endorsement, which will help in guiding course elective choices throughout high school. Students may earn a single endorsement, or multiple endorsements in the areas of : Arts and Humanities, Business and Industry, Multidisciplinary Studies, Public Service, or STEM (Science, Technology, Engineering & Math). Students wishing to change their declared endorsement must follow the Keller ISD process and should see their assigned counselor.

Keller ISD does not discriminate on the basis of sex, handicap, race, color, and/or national origins in its educational programs. Admission into career programs is based on age, grade, interest, aptitude and ability. Lack of English language will not be a barrier to admission and participation in any educational program.

Endorsements & Pathways

<u>Arts & Humanities</u> *	<u>Business & Industry</u>	<u>Public Services</u>	<u>STEM</u>
<ul style="list-style-type: none"> American Sign Language Band Choir Creative Writing Dance French German History Latin Orchestra Piano Social Sciences Spanish Technical Theatre Theatre Production Visual Arts: Drawing Visual Arts: Digital Media Visual Arts: Painting Visual Arts: Sculpture 	<ul style="list-style-type: none"> Accounting & Financial Services Architectural Design Automotive Broadcast Journalism * Business Management Construction Technology Culinary Arts Debate * Design & Multimedia Arts Digital Communications Electrical Technology Fashion Design HVAC (Heating, Ventilation & Air Conditioning) Interior Design Marketing Networking Systems/Maintenance Newspaper * Plant Science Plumbing Technology Veterinary Studies Welding Yearbook * 	<ul style="list-style-type: none"> Cosmetology Health Science: Biomedicine Health Science: Certified Nursing Assistant (CNA) Health Science: Clinical Rotations Health Science: Emergency Medical Technician (EMT) Health Science: Pharmacy Health Science: Exercise Science & Sports Medicine Law Enforcement: Police Legal Studies Military Science (ROTC) * Teaching and Training 	<ul style="list-style-type: none"> Biology * Chemistry * Cybersecurity Engineering Environmental Science * Math* Physics * Programming & Software Development Space Science *
Multidisciplinary Studies			

*Denotes non-CTE pathways

For more information about the **Arts and Humanities** pathways, please see the High School Academic Planning Guide @ www.kellerisd.net

Business and Industry



Agriculture, Food & Natural Resources

Program of Study Course Sequence	9th Grade	10th Grade	11th Grade	12th Grade	Optional Electives
Veterinary Studies	Principles of Agriculture, Food and Natural Resources (1 credit)	Veterinary Medical Applications (1 credit) Prerequisite: Principles of Agriculture, Food and Natural Resources	Advanced Animal Science (1 credit) AND Scientific Research & Design: Veterinary Clinical Skills (1 credit) Prerequisite: Veterinary Medical Applications	Practicum in Agriculture, Food and Natural Resources (2 credits) Prerequisites: Scientific Research & Design: Veterinary Clinical Skills	Wildlife, Fisheries, and Ecology Management (1 credit), Small Animal Management (.5 credit) and Equine Science (.5 credit), Agribusiness Management and Marketing (1 credit), Livestock Production (1 credit), Introduction to Welding (1 credit)
Plant Science	Principles of Agriculture, Food and Natural Resources (1 credit)	Horticultural Science (1 credit) AND 1 or more credits from the following 3 courses: Turf Grass Management (.5 credit), Landscape Design (.5 credit), Floral Design (1 credit) Prerequisite: Principles of Agriculture, Food and Natural Resources	Choose 1 or more credits from the following 3 courses: Greenhouse Operation & Production (1 credit), Advanced Floral Design (1 credit), Prerequisite: Floral Design, Advanced Plant and Soil Science (1 credit) Prerequisite: Horticultural Science	Practicum in Agriculture, Food and Natural Resources (2 credits) Prerequisites: 3 credits in the Plant Science Program	Agribusiness Management and Marketing (1 credit)

*Classes shaded in gray are taught at Keller Center for Advanced Learning (KCAL).



Architecture and Construction

Program of Study Course Sequence	9th Grade	10th Grade	11th Grade	12th Grade	Optional Electives
Architectural Design	Principles of Architecture (1 credit)	Architectural Design I (1 credit) Prerequisite: Principles of Architecture, Algebra 1, and English 1	Architectural Design II (2 credits) Prerequisite: Architectural Design I and Geometry	Practicum in Architectural Design (2 credits) Prerequisite: 3 credits in the Architectural Design Program including Architectural Design II	Civil Engineering (1 credit), SR &D: UAV (1 credit)
Construction Technology	Principles of Construction (1 credit)	Construction Technology I (2 credits) Prerequisite: Principles of Construction	Construction Technology II (2 credits) Prerequisite: Construction Technology I	Practicum in Construction Technology (2 credits) Prerequisite: 3 credits in the Construction Tech Program including Construction Technology II	Introduction to Welding (1 credit), Applied Math for Technical Professionals (1 credit), Entrepreneurship (1 credit but taught in 1 semester), SR &D: UAV (1 credit)
HVAC (Heating, Ventilation and Air Conditioning)	Principles of Construction (1 credit)	HVAC and Refrigeration Technology I (1 credit) AND Sheet Metal (1 credit) Prerequisite: Principles of Construction	HVAC and Refrigeration Technology II (2 credits) Prerequisite: HVAC & Refrigeration I	Practicum in Construction Technology (2 credits) Prerequisite: 3 credits in the HVAC Program including HVAC & Refrigeration II	Introduction to Welding (1 credit), Electrical Technology I (1 credit), Construction Technology I (2 credits), Applied Math for Technical Professionals (1 credit), Entrepreneurship (1 credit but taught in 1 semester)



Architecture and Construction

Program of Study Course Sequence	9th Grade	10th Grade	11th Grade	12th Grade	Optional Electives
Plumbing Technology	Principles of Construction (1 credit)	Plumbing Technology I (1 credit) AND Pipefitting Technology I (1 credit) Prerequisite: Principles of Construction	Plumbing Technology II (2 credits) Prerequisite: Plumbing Technology I	Practicum in Construction Technology (2 credits) Prerequisite: 3 credits in the Plumbing and Pipefitting program including Plumbing Tech II	Introduction to Welding (1 credit), Construction Technology I (2 credits), Applied Math for Technical Professionals (1 credit), Entrepreneurship (1 credit but taught in 1 semester)
Electrical Technology	Principles of Construction (1 credit)	Electrical Technology I (1 credit) Prerequisite: Principles of Construction	Electrical Technology II (2 credits) Prerequisite: Electrical Technology I	Practicum in Construction Technology (2 credits) Prerequisite: 3 credits in the Electrical program including Electrical Technology II	Introduction to Welding (1 credit), Construction Technology I (2 credits). Applied Math for Technical Professionals (1 credit), Entrepreneurship (1 credit but taught in 1 semester)
Interior Design	Principles of Architecture (1 credit)	Interior Design I (1 credit) Prerequisite: Principles of Architecture, Algebra I, and English 1	Interior Design II (2 credits) Prerequisite: Interior Design I, English II, and Geometry	Practicum in Architectural Design (2 credits) Prerequisite: 3 credits in the Interior Design Program, including Interior Design II	Architectural Design I (1 credit), Civil Engineering (1 credit)

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Arts, A/V Technology & Communications

Program of Study Course Sequence	9th Grade	10th Grade	11th Grade	12th Grade	Optional Electives
Design & Multimedia Arts	Principles of Arts, Audio/Video Technology and Communications (1 credit) OR Animation I (1 credit), OR Graphic Design and Illustration I (1 credit)	Choose 1 of the following courses: Animation I (1 credit), Graphic Design and Illustration I (1 credit) OR Animation II/Animation II Lab (2 credits), Graphic Design and Illustration II/Graphic Design and Illustration II Lab (2 credits)	Choose 1 of the following courses: Animation I (1 credit), Animation II/Animation II Lab (2 credits), Graphic Design and Illustration I (1 credit), Graphic Design and Illustration II/Graphic Design and Illustration II Lab (2 credits) Practicum in Animation (2 credits), Practicum in Graphic Design and Illustration (2 credits)	Choose 1 of the following courses: Animation II/Animation II Lab (2 credits), Graphic Design and Illustration II/Graphic Design and Illustration II Lab (2 credits), Practicum in Animation (2 credits), Practicum in Graphic Design and Illustration (2 credits) Practicum in Animation II (2 credits), Practicum in Graphic Design and Illustration II (2 credits)	Commercial Photography I (1 credit), Digital Media (1 credit), Social Media Marketing (.5 credit)
Digital Communications	Principles of Arts, Audio / Video Technology and Communications (1 credit) OR Audio / Video Production I (1 credit)	Audio / Video Production I (1 credit) OR Audio / Video Production II/ Audio/Video Production II Lab (2 credits)	Audio / Video Production II/ Audio/Video Production II Lab (2 credits) OR Practicum in Audio/Video Production (2 credits)	Practicum in Audio/Video Production (2 credits) OR Practicum in Audio/Video Production II (2 credits)	Commercial Photography I (1 credit) SR &D: UAV (1 credit)
Fashion Design (at Keller HS only)	Principles of Arts, Audio / Video Technology and Communications (1 credit)	Fashion Design I (1 credit)	Fashion Design II/ Fashion Design II Lab (2 credits) Prerequisite: Fashion Design I	Practicum in Entrepreneurship (2 credits)	Fashion Marketing (.5 credit), Digital Media (1 credit), Entrepreneurship (1 credit but taught in 1 semester)

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Business Management & Administration

Program of Study Course Sequence	9th Grade	10th Grade	11th Grade	12th Grade	Optional Electives
Business Management	Principles of Business, Marketing, and Finance (1 credit)	Choose 1 of the following courses: Business Information Management I (1 credit), Business Management (1 credit) Prerequisite: Principles of Business, Marketing, and Finance	Choose 2 of the following courses: Business Information Management I (1 credit), Business Information Management II (1 credit), Business Management (1 credit), Statistics and Business Decision Making (1 credit) Prerequisite: Principles of Business, Marketing, and Finance and 1 additional business course	Choose 2 or more credits from the following courses: Practicum in Business Management (2 credits), Business Management (1 credit), Statistics and Business Decision Making (1 credit) Prerequisite: Algebra II Career Preparation I/Extended Career Preparation (3 credits) Prerequisite: 3 credits of business courses	Entrepreneurship (1 credit but taught in 1 semester), Global Business (.5 credit), Money Matters (1 credit)



Business Communications +

Program of Study Course Sequence	9th Grade	10th Grade	11th Grade	12th Grade
Debate	Debate I (1 credit)	Debate II (1 credit) OR Oral Interpretation I (1 credit) Prerequisite: Debate 1	Debate III (1 credit) OR Oral Interpretation II (1 credit) Prerequisite: 2 credits in Debate pathway	Independent Study in Speech (1 credit) Prerequisite: 3 credits in Debate pathway
Broadcast Journalism	Contemporary Media (1 credit)	Advanced Broadcast Journalism I (1 credit) Prerequisite: Contemporary Media	Advanced Broadcast Journalism II (1 credit) Prerequisite: Advanced Broadcast Journalism I	Advanced Broadcast Journalism III (1 credit) Prerequisite: Advanced Broadcast Journalism II
Newspaper	Contemporary Media (1 credit)	Newspaper I (1 credit) Prerequisite: Contemporary Media	Newspaper II (1 credit) Prerequisite: Newspaper I	Newspaper III (1 credit) Prerequisite: Newspaper II
Yearbook	Contemporary Media (1 credit)	Yearbook I (1 credit) Prerequisite: Contemporary Media	Yearbook II (1 credit) Prerequisite: Yearbook I	Yearbook III (1 credit) Prerequisite: Yearbook II

+ non-CTE pathways



Finance

Program of Study Course Sequence	9th Grade	10th Grade	11th Grade	12th Grade	Optional Electives
Accounting and Financial Services	Principles of Business, Marketing, and Finance (1 credit)	Accounting I (1 credit), Prerequisite: Principles of Business, Marketing, and Finance	Business Information Management I (1 credit) AND Accounting II (1 credit), Prerequisite: Accounting I	Practicum in Business Management (2 credits) Prerequisite: 3 credits of Business courses	Entrepreneurship (1 credit but taught in 1 semester), Global Business (.5 credit), Money Matters (1 credit), Business Information Management II (1 credit), Statistics and Business Decision Making (1 credit)

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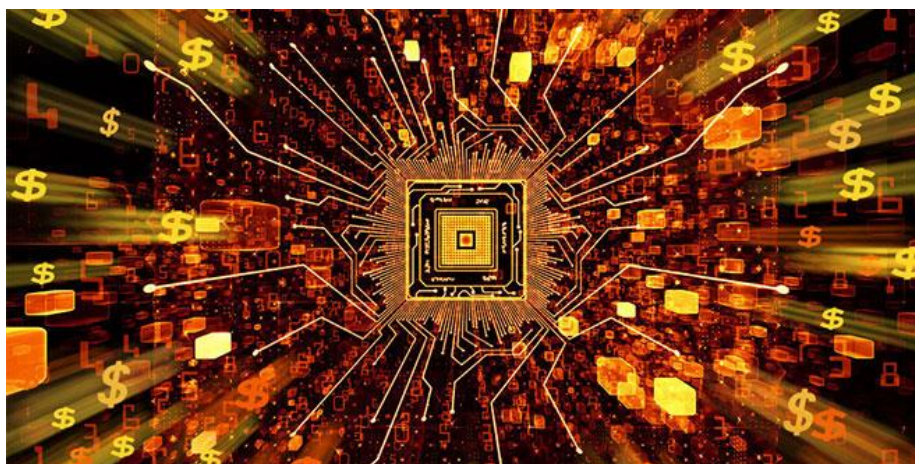
Hospitality & Tourism

Program of Study Course Sequence	9th Grade	10th Grade	11th Grade	12th Grade	Optional Electives
Culinary Arts	Introduction to Culinary Arts (1 credit)	Culinary Arts (2 credits but taught in 1 period) Prerequisite: Introduction to Culinary Arts	Advanced Culinary Arts (2 credits) Prerequisite: Culinary Arts	Practicum in Culinary Arts (2 credits) Prerequisite: Advanced Culinary Arts	Lifetime Nutrition & Wellness (.5 credit)



Information Technology

Program of Study Course Sequence	9th Grade	10th Grade	11th Grade	12th Grade	Optional Electives
Networking Systems/Maintenance	Computer Maintenance (1 credit) Prerequisite: None	Networking/Networking Lab (2 credits) Prerequisite: Computer Maintenance	Practicum in Information Technology I: Networking Systems/Maintenance (2 credits) Prerequisite: Computer Maintenance and Networking/Networking Lab	Practicum in Information Technology II: Networking Systems/Maintenance (2 credits) OR Career Preparation I: Networking (2 credits) Prerequisite: Practicum in IT I	Digital Forensics (1 credit)



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Manufacturing

Manufacturing

Program of Study Course Sequence	9th Grade	10th Grade	11th Grade	12th Grade	Optional Electives
Welding	Introduction to Welding (1 credit)	Welding I (2 credits) Prerequisite: Introduction to Welding	Welding II (2 credits) Prerequisite: Welding I	Practicum in Manufacturing (2 credits) Prerequisite: 3 credits in the Welding program, including Welding II	Construction Technology I (2 credits), Applied Math for Technical Professionals (1 credit)



Marketing

Marketing

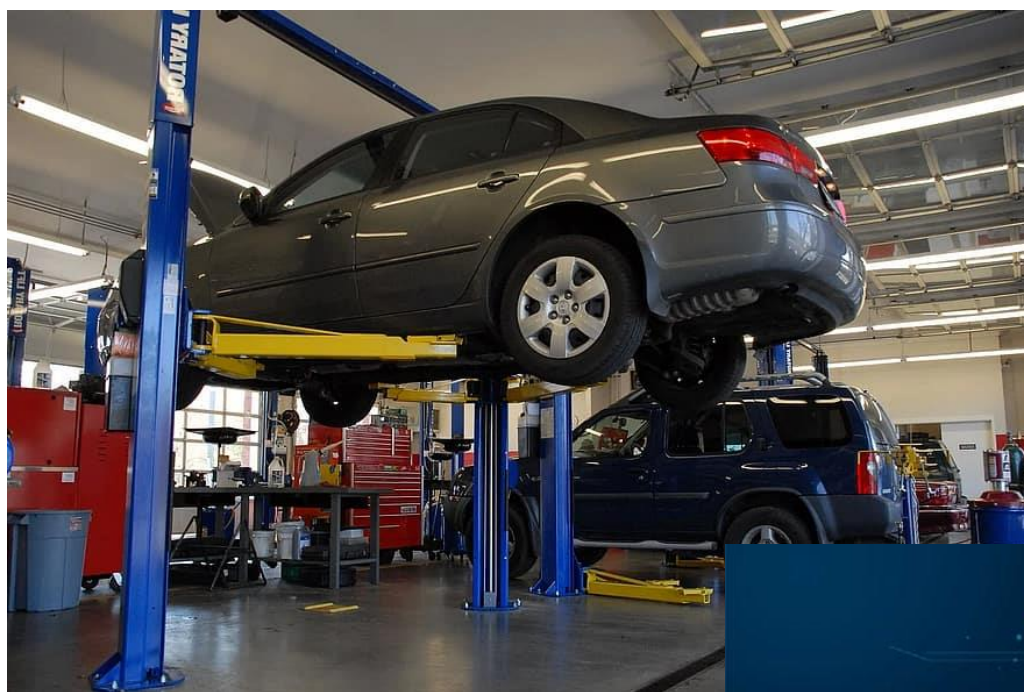
Program of Study Course Sequence	9th Grade	10th Grade	11th Grade	12th Grade
Marketing	Principles of Business, Marketing & Finance (1 credit)	Advertising (.5 credit) AND Choose one or more of the following courses: Fashion Marketing (.5 credit), Sports & Entertainment Marketing (.5 credit), Social Media Marketing (.5 credit) Prerequisite: Principles of Business, Marketing, & Finance	Advanced Marketing (2 credits) Prerequisite: 2 credits of marketing courses	Practicum in Marketing (2 credits) Prerequisite: Advanced Marketing AND/OR Statistics and Business Decision Making (1 credit) Prerequisite: Algebra II OR Career Preparation I/Extended Career Preparation (3 credits) Prerequisite: 3 credits of Marketing courses

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Transportation, Distribution & Logistics

Program of Study Course Sequence	9th Grade	10th Grade	11th Grade	12th Grade
Automotive	Automotive Basics (1 credit)	Automotive Technology I: Maintenance and Light Repair (2 credits) Prerequisite: Automotive Basics	Automotive Technology II: Automotive Service (2 credits) Prerequisite: Automotive Technology I	Choose 1 of the following: Practicum in Transportation Systems (2 credits) Career Preparation I: Auto (2 credits) OR Career Preparation I/ Extended Career Preparation: Auto (3 credits) Prerequisite: Automotive Technology II



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Public Services

<div>  <div>Education & Training</div> </div> Education & Training					
Program of Study Course Sequence	9th Grade	10th Grade	11th Grade	12th Grade	Optional Electives
Teaching and Training	Principles of Education and Training (1 credit)	Child Development (1 credit) Prerequisite: Principles of Education & Training	Instructional Practices (2 credits) Prerequisite: Child Development	Practicum in Education & Training (2 credits) Prerequisite: 3 credits of Teaching and Training courses	Counseling and Mental Health (1 credit), Professional Communications (.5 credit), Psychology (.5 credit), Sociology (.5 credit)



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Health Science

Program of Study Course Sequence	9 th Grade	10 th Grade	11 th Grade	12 th Grade
Health Science: Biomedicine	Medical Terminology (1 credit)	Health Science Theory (1 credit)	Medical Microbiology (1 credit) AND Anatomy and Physiology (home campus) (1 credit) Prerequisite: Health Science Theory, Biology, Chemistry	World Health Research (1 credit) AND Pathophysiology (1 credit), OR Practicum in Health Science: PCT (2 credits) OR Practicum in Health Science: CMA (2 credits) Prerequisite: 3 credits in Health Science Program
Health Science: Clinical Rotations	Medical Terminology (1 credit)	Health Science Theory (1 credit)	Anatomy and Physiology (home campus) (1 credit) AND Practicum in Health Science I: Clinical Rotations (2 Credits) Prerequisite: Health Science Theory, Biology, Chemistry	Practicum in Health Science: PCT (2 credits) OR Practicum in Health Science: CMA (2 credits) Prerequisite: 3 credits in Health Science Program
Health Science: Certified Nursing Assistant (CNA)	Medical Terminology (1 credit)	Health Science Theory (1 credit)	Anatomy and Physiology (home campus) (1 credit) AND Practicum in Health Science I: CNA (2 credits) Prerequisite: Health Science Theory, Biology, Chemistry	Practicum in Health Science: PCT (2 credits) OR Practicum in Health Science: CMA (2 credits) Prerequisite: 3 credits in Health Science Program

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Program of Study Course Sequence	9 th Grade	10 th Grade	11 th Grade	12 th Grade
Health Science: Emergency Medical Technician (EMT)	Medical Terminology (1 credit)	Health Science Theory (1 credit)	Anatomy and Physiology (at home campus) (1 credit) AND Pathophysiology (1 credit) Prerequisite: Health Science Theory, Biology, Chemistry	Practicum in Health Science: EMT (2 credits) OR Practicum in Health Science: PCT (2 credits) OR Practicum in Health Science: CMA (2 credits) Prerequisite: 3 credits in Health Science Program
Health Science: Pharmacy	Medical Terminology (1 credit)	Health Science Theory (1 credit)	Anatomy and Physiology (home campus) (1 credit) AND Pharmacology (1 credit) Prerequisite: Health Science Theory, Biology, Chemistry	Practicum in Health Science: Pharmacy (2 credits), OR Practicum in Health Science: PCT (2 credits) OR Practicum in Health Science: CMA (2 credits) Prerequisite: 3 credits in Health Science Program
Health Science: Exercise Science and Sports Medicine	Medical Terminology (1 credit)	Health Science Theory (1 credit) AND Kinesiology I (1 credit)	Anatomy and Physiology (1 credit) Prerequisite: Biology, Chemistry, Health Science Theory AND Kinesiology II (1 credit) Prerequisite: Kinesiology I	Practicum in Health Science I: Sports Medicine (2 credits), OR Practicum in Health Science: PCT (2 credits) OR Practicum in Health Science: CMA (2 credits) Prerequisite: Sports Med II or Kinesiology II



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Human Services

Program of Study Course Sequence	9th Grade	10th Grade	11th Grade	12th Grade
Cosmetology		Professional Communications (.5 credit) AND Entrepreneurship (1 credit but taught in 1 semester)	Principles of Cosmetology (1 credit) AND Cosmetology I (2 credits)	Cosmetology II (2 credits) AND Practicum in Human Services (2 credits) Prerequisite: and Cosmetology I



Reserve Officer Training Corp (ROTC) +

Program of Study Course Sequence	9th Grade	10th Grade	11th Grade	12th Grade
Military Science	ROTC I (1 credit)	ROTC II (1 credit) Prerequisite: ROTC I	ROTC III (1 credit) Prerequisite: ROTC II	ROTC IV (1 credit) Prerequisite: ROTC III

+ non-CTE pathway



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Law, Public Safety, Corrections & Security

Program of Study Course Sequence	9th Grade	10 th Grade	11th Grade	12 th Grade
Legal Studies	Principles of Law, Public Safety, Corrections, and Security (1 credit)	Court Systems and Practices (1 credit) Prerequisite: Principles of Law & Public Safety	Legal Research and Writing (1 credit) Prerequisite: Court Systems and Practices	Practicum in Law, Public Safety, Corrections, and Security: Legal (2 credits) Prerequisite: 3 credits in the Law Program
Law Enforcement: Police	Principles of Law, Public Safety, Corrections, and Security (1 credit)	Law Enforcement I (1 credit) Prerequisite: Principles of Law & Public Safety	Forensic Science (1 credit) AND Forensic Psychology (1 credit) Prerequisite: Law Enforcement I, Biology, and Chemistry	Practicum in Law, Public Safety, Corrections, and Security: Law (2 credits) Prerequisite: 3 credits in the Law Program



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S.T.E.M.



Science, Technology, Engineering & Mathematics

Program of Study Course Sequence	9th Grade	10th Grade	11th Grade	12th Grade
Biology+	Biology (1 credit)	Chemistry (1 credit) Required Prerequisite: 1 Science and Algebra 1	Physics (1 credit) AND Anatomy and Physiology (1 credit) Prerequisite: 2 credits in Science	AP Biology (1 credit) Prerequisite: 3 credits in Science
Chemistry+	Biology (1 credit)	Chemistry (1 credit) Required Prerequisite: 1 Science and Algebra 1	Physics (1 credit) AND AP Biology (1 credit) Prerequisite: 2 credits in Science	AP Chemistry (1 credit) Prerequisite: 3 credits in Science
Environmental Science+	Biology (1 credit)	Chemistry (1 credit) Required Prerequisite: 1 Science and Algebra 1	Physics (1 credit) AND Aquatic Science (1 credit) Prerequisite: 2 credits in Science	Environmental Systems OR AP Environmental Science (1 credit) Prerequisite: 3 credits in Science
Physics+	Biology (1 credit)	Chemistry (1 credit) AND AP Physics I (1 credit) Required Prerequisite: 1 Science and Algebra 1	AP Physics II (1 credit) Prerequisite: Physics 1 and Pre-Cal	AP Physics C: Electricity and Magnetism (1 credit) OR AP Physics C: Mechanics (1 credit) Prerequisite: Physics I and Pre-Cal
Space Science+	Biology (1 credit)	Chemistry (1 credit) Required Prerequisite: 1 Science and Algebra 1	Physics (1 credit) AND Earth and Space Science (1 credit) Prerequisite: 2 credits in Science	Astronomy (1 credit) Prerequisite: 3 credits in Science

+ non-CTE pathways

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Science, Technology, Engineering & Mathematics

Program of Study Course Sequence	9th Grade	10th Grade	11th Grade	12th Grade
Cybersecurity	Computer Science Essentials (1 credit) Prerequisite: Algebra I (completed or concurrent enrollment)	Cybersecurity (1 credit) Prerequisite: Computer Science Essentials	Cybersecurity Capstone (1 credit) AND Digital Forensics (1 credit) Prerequisite: Cybersecurity	Practicum in Information Technology: Cybersecurity (2 credits) Prerequisite: Cybersecurity Capstone and Digital Forensics
Programming and Software Development	Computer Science I Honors (1 credit) Prerequisite: Algebra I (completed or concurrent enrollment)	AP Computer Science (2 credits but taught in 1 period) Prerequisite: Computer Science I Honors	Computer Science II (1 credit) AND Computer Science III (1 credit) Prerequisite: AP Computer Science	Practicum in Information Technology: Programming and Software Development (2 credits) Prerequisite: Computer Science II and III



Science, Technology, Engineering & Mathematics

Program of Study Course Sequence	9th Grade	10th Grade	11th Grade	12th Grade
Math+	<u>Required</u> Algebra I , Geometry, and Algebra II		<u>PICK TWO:</u> Pre-Calculus, Statistics, Calculus, Linear Algebra and Multivariable Calculus Choose the appropriate level and check prerequisites.	

+ non-CTE pathway

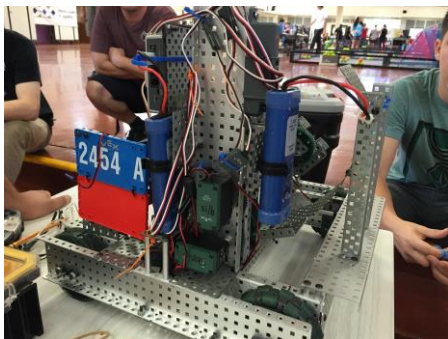


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Science, Technology, Engineering & Mathematics

Program of Study Course Sequence	9th Grade	10th Grade	11th Grade	12th Grade
Engineering	<p>Introduction to Engineering Design (1 credit) Prerequisite: Algebra I (completed or concurrent enrollment)</p>	<p>Engineering Science (PLTW: Principles of Engineering) (1 credit) Prerequisite: Introduction to Engineering Design, Algebra 1, and Biology</p>	<p>Choose 2 credits from the following 5 courses:</p> <p>Aerospace Engineering (1 credit), Digital Electronics (1 credit), Civil Engineering (1 credit), Environmental Sustainability (1 credit), Robotics I (1 credit), Scientific Research & Design: Introduction to Unmanned Aerial Vehicles (1 credit) Prerequisite: Engineering Science, Algebra I, and Geometry</p>	<p><u>Option 1:</u> Practicum in Science, Technology, Engineering, and Math (2 credits)</p> <p><u>Option 2:</u> Engineering Design and Problem Solving (PLTW: Engineering Design & Development) (1 credit) AND 1 credit from the following courses: Robotics II (1 credit), Computer Integrated Manufacturing (1 credit), Aerospace Engineering (1 credit), Digital Electronics (1 credit), Civil Engineering (1 credit), Environmental Sustainability (1 credit) Prerequisite: 3 credits in Engineering Program</p>



*Classes shaded in gray are taught at Keller Center for Advanced Learning (KCAL).

Multi-Disciplinary

Program of Study	9th	10th	11th	12th
Core Classes (sample pathway)	English 1 Algebra 1 Biology W. Geography	English 2 Geometry Chemistry** World History	English 3 Algebra 2 Physics** OR 3rd Science US History	English 4* 4th Math 4th Science Government/ Economics
Advanced CTE Courses***			Advanced CTE Credit 1 Advanced CTE Credit 2	Advanced CTE Credit 3 Advanced CTE Credit 4
Advanced Core Courses****		AP or Dual Credit Course 1	AP or Dual Credit Course 2	AP or Dual Credit Course 3 AP or Dual Credit Course 4

*Students *cannot* substitute English 4 for another 4th English option

**Students *must* take either Chemistry or Physics.

***Courses do not have to be in a coherent sequence nor within the same endorsement area. Advanced CTE courses are those offered by KISD in the 11th or 12th grade or those that fall under levels 3 and 4 of the [TEA Approved CTE Programs of Study](#)

****AP or Dual Credit courses must be in the areas of English, Math, Science, Social Studies, Languages Other Than English, or Fine Arts



CTE Student Organizations



Business Professionals of America (BPA)

The mission of Business Professionals of America is to contribute to the preparation of a world-class workforce through the advancement of leadership, citizenship, academic, and technological skills. BPA is committed to developing the best possible career and technical education organization for students in the United States. Their measure of success is the perception that alumni of Business Professionals of America are highly competent and skilled workforce professionals who enable business and industry to maintain the economic vitality and high quality of life.



Distributive Education Clubs of America (DECA)

DECA prepares emerging leaders and entrepreneurs in high schools and colleges around the globe for careers in marketing, finance, hospitality and management. DECA's Comprehensive Learning program integrates into classroom instruction, applies learning, connects to businesses, and promotes competition. DECA prepares the next generation to be academically prepared, community oriented, professionally responsible, and experienced leaders.



National Future Farmers of America (FFA)

FFA prepares students for successful careers and a lifetime of informed choices in global agriculture, food, fiber, and natural resources systems. FFA increases awareness of the global technological importance of agriculture, develops competent agricultural leadership, builds self-confidence, promotes cooperation and cooperative attitudes, and promotes citizenship, volunteerism, and patriotism.



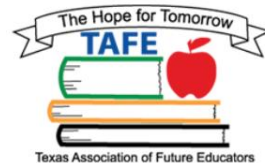
Health Occupations Students of America (HOSA)

The mission of HOSA is to enhance the delivery of compassionate, quality health care by providing opportunities for knowledge, skill, and leadership development of all health science technology education students; therefore, helping students to meet the needs of the health-care community.



SkillsUSA

SkillsUSA is a partnership of industry, students, and teachers working together to ensure that America has a skilled workforce. It provides quality education experiences for students in leadership, teamwork, citizenship, and character development. It builds and reinforces self-confidence, work attitudes, and communication skills. It emphasizes total quality at work, high ethical standards, superior work skills, lifelong education, and pride in the dignity of work.



Texas Association of Future Educators (TAFE)

TAFE encourages students to learn about careers in education and assists them in exploring the teaching profession while promoting character, service, and leadership skills necessary for becoming effective educators.



Family, Career and Community Leaders of America (FCCLA)

FCCLA is a nonprofit national career and technical student organization for young men and women in Family and Consumer Science education in public and private schools through grade 12. FCCLA's mission is to promote personal growth and leadership development through Family and Consumer Science Education courses.



Future Business Leaders of America (FBLA)

FBLA is a career and technical student organization that is open to students who are enrolled in a Business course. The mission is to bring business and education together in a positive working relationship through innovative leadership and career development programs. Through participation in competitive events, students may earn recognition for their business skills.



KCAL Robotics Club

The mission of KCAL Robotics Club is to provide our students with the skills to impact a growing global economy. We do this by providing training in areas such as leadership, citizenship, and both academic and technological skills. This combination is demonstrated in robot construction and then later in a competitive format in local, state, and regional events. Success is measured by the cumulative results of these competitions and by students who will continue on in this chosen path. Our purpose is evident: engineering a better tomorrow today!



Automotive Technology Club

The Automotive Technology Club is a cadre of students dedicated to growing their knowledge and skills outside of the classroom environment.



Technical Student Association (TSA)

The Technology Student Association (TSA) is a national organization for students that have a passion for and want to be engaged in Science, Technology, Engineering and Mathematics (STEM). Membership is open to both Middle and High School students and includes more than 250,000 students across the United States. Educators, parents, and business leaders support this organization. Members learn through exciting competitive events, leadership opportunities, and much more. A wide range of activities makes TSA a positive experience for every student.



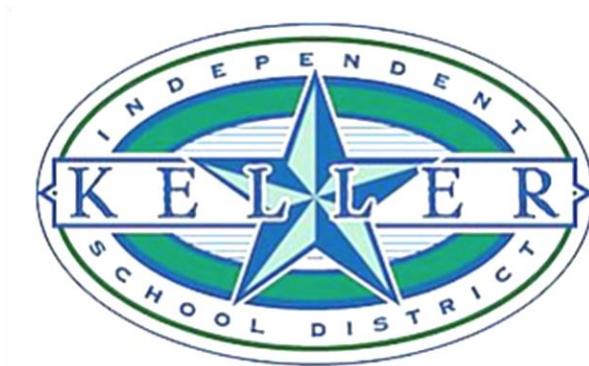
National Technical Honor Society (NTHS)

NTHS is a student organization open to students that are active in their CTSO. The mission of NTHS is to honor student achievement and leadership, promote educational excellence, and enhance career opportunities for the NTHS membership.



Girls Engineering and Robotics Society

GEARS was established to give girls an opportunity to grow in Engineering and Robotics, leveling the playing field when competing for job opportunities in the current marketplace.



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