



Henry County High School

Program of Studies

2026-2027

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Mission Statement

Henry County High School

Our Mission at HCHS is to create an environment where our students become effective citizens through learning and building relationships in our school and community.

Henry County Public Schools

Empowering leaders and life-long learners for an ever-changing world.

Equal Educational Opportunities

No Pupil shall be discriminated against because of age, color, handicap, parental status, marital status, race, national origin, religion, sex, or veteran status. Policy 09.13.

The policy manual is available online at www.henry.kyschools.us.

Graduation Requirements

Kentucky Department of Education: Minimum Graduation Requirements For Students Entering High School in 2019-2020 and Thereafter

[704 KAR 3:305](#), Kentucky's new minimum high school graduation requirements, became effective on April 5, 2019. However, [Senate Bill 158](#) (2020) requires changes be made to state and local graduation requirements for students who entered high school in the 2019-2020 school year and thereafter. Please see the [Senate Bill 158 Implications for Minimum High School Graduation Requirements document](#) for specific changes.

	<u>4 English Credits</u> English I English II	<u>4 Math Credits</u> Algebra I Geometry	<u>3 Social Studies Credits</u> Social Studies Social Studies	<u>3 Science Credits</u> Lab-based Science Lab-based Science	<u>Other Credits</u> ½ Health; ½ PE Visual/Performing Arts
Foundational					
Personalized	2 Additional English credits aligned with the ILP and covering the remaining KAS for Reading & Writing Additional course options aligned to the KAS for Reading & Writing could include, but are not limited to: English III, English IV, AP Language, AP Literature, dual credit English, etc.	2 Additional Math credits aligned with the ILP and covering the remaining KAS for Mathematics Additional course options aligned to the KAS for Mathematics could include, but are not limited to: Algebra II, Precalculus, College Algebra, AP Calculus, dual credit math, dual credit CTE math, etc.	Social Studies aligned with the ILP and covering the KAS for Social Studies Additional course options aligned to the KAS for Social Studies could include, but are not limited to: Social Studies 1, 2, 3, Geography/AP Human Geo, World History (or AP), US History (or AP), Economics, etc.	Science aligned with ILP and covering the KAS for Science Additional course options aligned to the KAS for Science could include, but are not limited to: Chemistry (or AP), Physics (or AP), Biology (or AP), CSI Forensics, dual credit science, etc.	6 credits aligned with ILP and covering the related content area KAS. Additional course options aligned to the KAS for Visual and Performing Arts could include, but are not limited to: Chorus 1, Orchestra 1, Visual Arts 1, Theatre 1, Band 1, etc.

All required courses must be aligned to the Kentucky Academic Standards. These are state minimum standards and additional requirements may vary by district.

Other Graduation Requirements:

- Pass state-mandated civics test
- (Beginning in 2020-2021) Successfully complete a course or program in financial literacy
- Receive instruction in essential workplace ethics
- Demonstrate competency in technology



Other Considerations:

- Development of Individual Learning Plan (grades 6-12)
- CPR Training in Health, PE or JROTC course

Career Pathways

Students are considered a Concentrator in a pathway when they have successfully completed 2 courses. When a student reaches Concentrator status, they are eligible to sit for the End of Program test. Students are also able to earn dual-credit and/or industry recognized certifications in several pathways. The 7 core Workplace Ethics skills and requirements are embedded within the CTE courses and career pathways.

Below are the pathways and the typical sequence of classes taken for each.

Agriculture

Ag Power and Construction

Principles of Ag Science
Small Power and Equipment
Ag Construction Skills
Ag Co-op

Animal Science

Principles of Ag Science
Animal Science
Animal Science Technology/AGR 100 or 182
Ag Co-op

Plant Science

Principles of Ag Science
Greenhouse Tech
Nursery and Orchard
Ag Co-op

Air Force JROTC

Air Force JROTC 1
Air Force JROTC 2

Air Force JROTC 3
Air Force JROTC 4

Business

Accounting

Digital Literacy/CIT 105
Accounting and Finance Foundations
Microsoft Office Specialist
Financial Management

Administrative Support

Digital Literacy/CIT 105
Accounting & Finance Foundations
Business & Marketing Essentials
Microsoft Office Specialist
Intro to Management

Management and Entrepreneurship

Business and Marketing Essentials
Introduction to Management
Principles of Entrepreneurship

Education

Teaching and Learning

Introduction to Education/EDU 103

Introduction to Teacher Education Concentrations/EDU 108

Developmental Psychology/EDU 260

Collaborative Clinical Experience

Engineering

Engineering Technology Design

Engineering I

Engineering II

Advanced Design Applications

Building Construction

Health Sciences

Allied Health

Principles of Health/AHS 105

Medical Terminology/AHS 115

Emergency Procedures

Medical Math

Anatomy or Practicum

Allied Health Core Skills

Pre-Nursing

Principles of Health/AHS 105

Medical Terminology/AHS 115

Emergency Procedures

Medical Math

NAA 100

Media Arts

Cinematography and Video Production

Introduction to Media Arts

Video Studio Fundamentals

Studio Directing and Performance

Advanced Studio Directing

Registration Process

Students will register for courses in March by completing a Google Course Request form that considers graduation requirements, CTE pathways, and student interest (ILP). Each student will receive their registration sheet with their desired courses after completing the Google form to take home for parent/guardian approval. Parent/guardian and student must sign and return the

registration sheet to the counseling office. Questions and/or comments can be directed to the counseling office or to the student's school counselor at (502) 845-8677.

Class of 2026 & Class of 2028 – Cory Whitworth

Class of 2027 & Class of 2029 – Sarah Golden

Dual Credit

Dual credit is an excellent opportunity for the students of HCHS! Through our partnerships with multiple universities and colleges, we offer a wide array of dual credit options to our students. By taking dual credit courses students can earn both college credit and high school credit for the same course.

Dual Credit Scholarships

Currently, the state offers dual credit scholarships to all resident students enrolled in dual credit classes.

Work Ready Dual Credit Scholarship

Students in grades 9-12 have access to the Kentucky Work Ready Dual Credit Scholarship. These scholarships can be used for any KDE approved Career and Technical Education dual credit course. Students will receive two of these scholarships each year of high school, as long as the program is in effect.

Dual Credit Scholarship

Students in grades 11-12 will also receive two Dual Credit Scholarships to be used on any KDE approved dual credit course. Students will only receive two of these for their lifetime.

These scholarships, combined with HCPS' commitment to cover the remainder of tuition, means that students have access to up to 30 credit hours of college credit for free!

A dual credit contract is required to be signed by the student and parent and then returned to the counseling department to remain in the dual credit class.

Dual Credit Enrollment Requirements

Jefferson Community Technical College (JCTC)

KCTCS will admit and place students into general education courses with a high school GPA per the table below. Course prerequisites listed in the KCTCS catalog remain in place and can also be met using the GPA indicators. If a student has both recognized test scores and a GPA, they may be placed at the highest level demonstrated by either scores or GPA. High school freshman

without a GPA may be admitted to one dual credit course with a high school guidance counselor's recommendation in their first term of dual credit until they earn a GPA.

Course	GPA	ACT
Technical Courses	2.0	16
General Education	2.5	N/A
College Ready in Reading	2.6	20
College Ready in English	2.8	18
College Ready for Most Math*	2.8	19
College Ready for College Algebra (MAT 150)	3.0	22
*MAT 105, 116, 126, 141, 146, 151, and 150/100 corequisite		

Midway University

To qualify for Midway University's Dual Credit Program, high school students must have:

- Junior or Senior status
- 2.5 high school GPA (unweighted)
- Meet Midway University's admission standards
- Meet all course prerequisites

Morehead State University

ENG 100 – Writing I	2.75 GPA and/or 18 ACT ENG sub score
ENG 200 – Writing II	Completion of ENG 100 or AP Lang of 3 or above
HST 261	2.75 GPA and/or 18 ACT ENG sub score
HST 271	Completion of ENG 100 or AP Lang of 3 or above

Murray State University

- Junior or Senior status
- 3.0 high school GPA (unweighted) or rank in top half of class

Early College

Off Campus at JCTC

HCHS has partnered with Jefferson Community and Technical College to offer 12th grade students, who are advanced in their studies, an opportunity to attend college early on the JCTC Carrollton Campus. Students who are interested in this program must meet all enrollment requirements for JCTC. They must also enroll and remain in at least 12 credit hours each semester including, ENG 101, ENG 102, and a math course*. In order to be considered, students must be Transition Ready and have benchmarked on the ACT (English 18, Math 19, Reading 20, Composite 18)—or an equivalent—and have maintained a 3.0 or above GPA. Attendance record and teacher recommendations will also be considerations. Students enrolled in JCTC Off Campus are still required to complete all graduation requirements including, Life 101. This can be completed by the student via an online program.

*Must have four math credits to graduate.

iLEAD Academy

iLEAD Academy is a collaborative project of the Henry, Carroll, Gallatin, Owen, and Trimble County Schools. This regional high school, located in Carroll Co., offers a completely personalized high school experience for students from each of these districts.

iLEAD Academy prepares students for high-demand, high-wage careers in Advanced Manufacturing, Engineering, and Technology. Each student develops a personalized pathway of study based on career interests and goals, choosing among courses at iLEAD, the Carroll County Area Technical Center, and in iLEAD's digital curriculum.

Teachers at iLEAD provide coaching and instruction to students whether in class, working on projects, or taking courses online. All students are enrolled in a Project Lead the Way (PLTW) pathway in which they apply concepts of engineering, science, math, and technology to solve complex problems in a real-world context. Students choose to earn work certifications aligned to their career goals - including PLTW, electrical, health, and informatics.

Each student works at his or her own pace but with the common goal of being "College Ready" by the end of the sophomore year. When students demonstrate mastery of a subject they move on to the next level. No student waits to advance into the next grade to progress in their coursework or toward college readiness.

Students meeting Kentucky's College Readiness benchmarks enroll full-time at Jefferson Community and Technical College in Carrollton. Students can graduate from iLEAD with a high school diploma and an Associate's Degree.

iLEAD's flexible learning environment is designed to facilitate development of essential workplace skills such as self-direction, goal setting and monitoring one's own progress, group work and collaboration. Each student is assigned a laptop and may use this and personal devices to learn and work anywhere and at any time.

Students may apply to attend iLEAD Academy in the spring of their 8th grade year. For more information, please contact the middle school or the high school counselors or principal.

Course Descriptions

Agriculture

Ag Co-Op - (Grade 12) Students enrolled in Ag Co-Op will have the opportunity to learn career related skills on paid and non-paid job sites. Each site will be monitored by teacher and assistance will be given to make the placement successful. Students are required to seek a placement in a career pathway in which they have completed a pathway (or are enrolled in classes that would complete that pathway). They should have Cs or above in each class in that career pathway. Students must have a driver's license. Students will have the option of a 1 period co-op where they work 6 hours per week or a 2-period co-op where they work 12 hours per week. **Prerequisite: Student must be transition ready to be considered. (1 credit)**

Agricultural Construction Skills - (grades 10-12) A course that describes theories, principles, and the application of construction in agriculture related industries. Includes principles of GPS and GIS, welding, electricity, plumbing, material selection, use and care of tools, safety, carpentry, masonry, fencing etc. Safety will be taught and emphasized in each unit. Leadership development will be provided through FFA. Each student will be expected to have a supervised agricultural experience program. **Prerequisite: Principles of Agriculture and Technology (1 credit) (Semester class)**

Animal Science - (grades 10-11) A course that describes the theories, principles and science of animals and animal products, etc. Students will have experiences in various animal science concepts with exciting "hands-on" activities, projects, and problems. Units emphasized include animal anatomy, physiology, behavior, nutrition, and reproduction. Laboratory experiences will be used to emphasize concepts. Content may be enhanced by utilizing current industry accepted technology. Leadership development will be provided through FFA. Each student will be expected to have a supervised agricultural experience program. **Prerequisite: Principles of Agriculture Science and Technology (1 credit) (Semester class)**

Animal Technology (AGR 100) - (grades 11-12) Students are encouraged to enroll in Animal Technology first. Students could receive a college credit in addition to a high school credit if they meet Murray's requirement of a 3.0 OR top half of their class. Course will cover science and

management and will result in a change to receive an industry certification. Each student will be expected to have a supervised agricultural experience program. **Prerequisite: Principles of Agriculture Science and Technology and Animal Science (1 credit) (Semester class)**

Greenhouse Technology - (grades 10-12) A course that describes theories, principles and the science of producing plants and crops within the greenhouse environment. All students will have the opportunity to work in the greenhouse both during and outside of class hours. Leadership development will be provided through FFA. Each student will be expected to have a supervised agricultural experience program. **Prerequisite: Principles of Agriculture Science and Technology (1 credit) (Semester class)**

Introduction to Veterinary Science (AGR 182) - (grades 11-12) Examines basic principles of veterinary science, including breeds, biology, veterinary tools, parasitology, office management, animal control, and basic clinical exam techniques for large and small animals. The purpose of this course is to provide upperclassmen agricultural education students with an introduction to the basic principles of veterinary science. This requires students to understand the biology of both large and small breeds of animals, as well as specifics related to the area of veterinary medicine. This class will build a foundation for those high school students interested in the area of veterinary science while serving as a dual credit course to gain elective credit through Murray State University. Each student will be expected to have a supervised agricultural experience program. **Prerequisite: Animal Technology (AGR 100) or instructor approval (1 credit) (Semester class)**

Principles of Agriculture Science and Technology - (grades 9-11) A foundational course for each of the agriculture pathways describing the principles, theories and science of the agricultural food, fiber, natural resources industries. It is a science-based course that provides instruction in the foundations of the various segments of the agricultural industry. Agricultural career opportunities will be emphasized. Environmental technology, animal science, and plant and land science will be the focus of the curriculum. Laboratory experiences will be used to emphasize concepts. The selection, planning and implementation of a supervised agricultural experience program and related record keeping will be a major component of the class. Leadership development will be provided through FFA. **This course must be taken before any other agriculture course or with another agriculture course for agriculture career cluster.** (1 credit) (Semester class)

Nursery and Orchard Technology - This course will provide instruction in production practices for container and field-grown nursery stock and the operation of farms, garden centers, and nurseries. This class will be offered in the fall. It is recommended to be taken after the completion of Greenhouse. Students will be utilizing the school farm for learning experiences. Leadership development will be provided through the National FFA Organization. Each student will be expected to have a supervised agricultural experience program. **Prerequisite: Principles of Agriculture Science and Technology (1 credit) (Semester class) NOT OFFERED EVERY YEAR**

Air Force JROTC

The heart of the Junior Reserve Officer Training Corps (JROTC) Program is citizenship and character education. It is designed to educate and train high school students in citizenship and life skills; promote community service; instill a sense of responsibility; and develop character, leadership, and self-discipline through education. These life skills are based on the Air Force core values of "integrity first, service before self, and excellence in all we do." Cadets are provided with the opportunity to perform color and honor guards; participate in drill team competitions; participate in parades; and conduct other leadership laboratory activities such as marksmanship, rocketry, academic bowl, CyberPatriot, Raiders, and more. This is not a military recruiting program and students incur no military obligation.

Air Force JROTC Aerospace Science and Leadership Education curriculum includes four primary learning areas: Aviation, Leadership, Wellness and Leadership Development Requirements. Each of these themes is interwoven throughout the three or four-year high school program. Generally, a typical class week is broken down as follows: 40% (2 days) of Leadership, 20% (1 day) of Aerospace Science, 20% (1 day) of Leadership Development Requirements and 20% (1 day) of Wellness and Physical Training.

Note: By Federal Regulation, JROTC requires that students wear a military uniform once per week for the entire school day and meet all grooming standards. Failure to maintain Air Force dress and appearance standards will result in removal from the program.

Air Force JROTC Fall – (grades 9-12)

Leadership Education (LE) – Students will learn about character development and elements of good citizenship designed to shape their character. They will learn to listen and think critically, effective communications, how to prepare for leadership, how to build personal awareness, key elements of building and encouraging effective teams, and key behaviors for becoming a credible and competent leader. Students will also learn about the importance of charting a career path, specific career options, how to create a personal budget and financial plan, how to write a resume, how to interview for a job, how to apply for college, the principles of management, making decisions, problem solving, human relations, and life skills. They are introduced to the Air Force organizational structure, uniform wear, military customs and courtesies, and flag etiquette from a character development perspective and not as a military recruitment effort. Curriculum follows the National Occupational Competency Testing Institute (NOCTI) JROTC Leadership and Employability Skills CTE Credential Standards and is designed to develop student employability.

Aerospace Science (AS) – This program combines Aerospace Science and STEM education to provide students with a comprehensive understanding of aviation, space exploration, and technological innovation. Students will learn the history of aviation, the development of air and space power, and the fundamentals of propulsion and navigation systems. They will focus on the basic principles of flight, aerodynamics, and introductory engineering design through

hands-on activities, including model rocketry, aircraft construction, and flight simulations using state-of-the-art flight simulation software. STEM education is used to support the aerospace science content areas through an integrated learning approach where problem solving and engineering practices are included, and technology is seamlessly integrated throughout the lesson. Students learn about these concepts in a real-world application and are required to apply them over and over again. As part of the Aerospace Science curriculum students will also learn about global cultural awareness, cyber security, and basic survival skills. Science, Technology, Engineering, and Math is curriculum-based subject areas designed for students to better understand science and math related curriculum, improve critical thinking skills, and to help cadets be competitive in the emerging technological workplace.

Wellness – Addresses the mental, spiritual, and physical training aspects of the cadets. It consists of health-related topics and discussions, as well as the Air Force Physical Fitness program designed to improve cadet fitness and lifestyles. Students will evaluate healthy living through physical activity and good nutrition.

Uniforms are provided; maintenance and return of JROTC uniform in the original condition will be the responsibility of the student/parent.

Air Force JROTC Spring – (grades 10-12)

Leadership Education (LE) – Students will learn about character development and elements of good citizenship designed to shape their character. They will learn to listen and think critically, effective communications, how to prepare for leadership, how to build personal awareness, key elements of building and encouraging effective teams, and key behaviors for becoming a credible and competent leader. Students will also learn about the importance of charting a career path, specific career options, how to create a personal budget and financial plan, how to write a resume, how to interview for a job, how to apply for college, the principles of management, making decisions, problem solving, human relations, and life skills. They are introduced to the Air Force organizational structure, uniform wear, military customs and courtesies, and flag etiquette from a character development perspective and not as a military recruitment effort. Curriculum follows the National Occupational Competency Testing Institute (NOCTI) JROTC Leadership and Employability Skills CTE Credential Standards and is designed to develop student employability.

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Air Force JROTC Leadership – (grade 12)

Management of the Cadet Corps – This is a capstone, upper-level course designed for experienced senior class cadets who are (generally) hand-selected for this class. The cadets manage the entire corps during this fourth year. This hands-on experience affords the cadets the opportunity to put the theories of previous leadership courses into practice. All the planning, organizing, coordinating, directing, controlling, and decision-making will be done by cadets. They will practice their communication, decision-making, personal-interaction, managerial, and organizational skills. Students will be able to apply leadership skills using the principles of the evolution of management as well and its functions; manage conflict; apply delegation skills; use problem solving and decision-making; mentor junior cadets; and utilize self-management of time, information, and in dealing with others.

Wellness – Addresses the mental, spiritual, and physical training aspects of the cadets. It consists of health-related topics and discussions, as well as implementing the Air Force Fitness Program designed to improve cadet fitness and lifestyles. **Prerequisite: Instructor Permission. (1 credit) (Year-long class)**

Uniforms are provided; maintenance and return of ROTC uniform in the original condition will be the responsibility of the student/parent.

Arts and Humanities

Note: A Humanities credit is a requirement for graduation that can be taken 9th-12th grade. This credit requirement can be fulfilled by one year of Band or Chorus, OR one semester of the following: Humanities, Music Theory I or II, Guitar, or American Cinema.

Humanities - (grades 9-12) This course will include visual art, music, drama and dance appreciation. The students will show an understanding of the influence of time, place, personality, and society on the arts and humanities. Students will learn to recognize differences and commonalities in the human experience by analyzing the arts produced in their own and other cultures. Students will develop their abilities to apply core concepts and principles from the arts and humanities to what they will encounter throughout their lives. **(1 credit) (Semester class)**

American Cinema - (grades 10-12) – This semester-long course will use film as a source to explore how the US society has been impacted by the Civil Rights Movements, the food supply system, and wars. Students will also analyze the elements of cinema and how those impact a film. **(1 Credit) (Semester class)**

Band - (grades 9-12) – Band is designed to develop knowledge and technique for playing brass, woodwind, percussion, and string instruments. Instrumental Ensemble covers multiple styles of music literature and connections to historical and cultural contexts. **Students will:**

1. Demonstrate intermediate music reading skills.
2. Interpret and demonstrate the meanings of basic music symbols through performance.
3. Demonstrate intermediate performance technique (tone, intonation, articulation, rhythm).
4. Demonstrate understanding of their individual role within the ensemble (e.g., blend and balance).
5. With assistance, select and prepare solo literature for performance.
6. Write music notation effectively.
7. Compose basic melodies using music notation and/or improvisation.
8. Perform with an intermediate level of musical expression.
9. With assistance, demonstrate/present historical and cultural contexts in their musical performances.
10. Use teacher-provided criteria to analyze and evaluate musical performances.

Students will be required to participate in 3-4 evening concerts, attend a concert festival performance in March and perform at selected after-school athletic events, students may audition for district honor band and All-State Band and perform at Solo and Ensemble Festival. **(1 credit) (Year-long class)**

Choir - (grades 9-12) – Choir is designed to develop knowledge and tone for all vocalists. Choir covers multiple styles of music literature and connections to historical and cultural contexts.

Students will:

1. Demonstrate intermediate music reading skills.
2. Interpret and demonstrate the meanings of basic music symbols through performance.
3. Demonstrate intermediate performance technique (rhythm, diction, tonal concept, etc.).
4. Demonstrate understanding of their individual role within the ensemble (e.g., blend and balance).
5. With assistance, select and prepare solo literature for performance.

6. Write music notation effectively.
7. Compose basic melodies using music notation and/or improvisation.
8. Perform with an intermediate level of musical expression.
9. With assistance, demonstrate/present historical and cultural contexts in their musical performances.
10. Use teacher-provided criteria to analyze and evaluate musical performances.

Students will be required to participate in evening concerts for test grades. (1 credit) (Year-long class)

Guitar Class - (grades 9-12) – This course teaches beginning to intermediate instrumental music through a curriculum that includes a guitar ensemble, rock combos, and individual performance opportunities. Students will be required to participate in 1-2 evening concerts and may audition for All-State Guitar. **Prerequisite: Instructor permission (1 credit) (Semester class)**

Music Theory - (grades 10-12) – This course teaches the fundamental concepts of music theory including notation, aural identification, interval structure and harmonic analysis. Students must be able to read music prior to enrollment. Music theory is essential for students considering majoring or minoring in music at the collegiate level. This class does fulfill the requirement for Arts and Humanities for students identified with an **Arts career cluster**. **Prerequisite: Students must have taken at least one year of either Band, Choir, Guitar, or have permission from the instructor. (1 credit) (Semester class)**

Music Theory II – (grade 11 - 12) This course builds off the skill base mastered in Music Theory, focusing on modality, form and analysis. Music Theory II is strongly recommended for students with a strong musical interest and especially for those considering a career in Applied Music and/or Music Education. **Prerequisite: Music Theory and instructor permission (1 credit) (Semester class)**

Business

Accounting and Finance Foundations - (grades 9-12) – This course will provide an introduction to accounting and finance. The content will be learned through hands-on activities and group discussions. Topics will include banking, credit, financial literacy, career exploration, spreadsheet usage, and technical writing. The accounting taught in this course includes preparing bank reconciliations, payroll taxes, and financial statements. Career exploration will focus on jobs available in the accounting field. Leadership development will be provided through FBLA. **(1 credit) (Semester class)**

Business and Marketing Essentials - (grades 9-10) – This course establishes basic foundations for further study in business courses and provides essential information for making financial decisions. Students learn about the fundamentals of the American free enterprise system and world economies; application of sound money management for personal and family finances;

credit management; consumer rights and responsibilities; forms of business ownership; risk and insurance; and the importance of international trade. Leadership development will be provided through FBLA. **(1 credit) (Semester class)**

Digital Literacy - (grades 9-10) – Students will use a computer and application software including word processing, presentation, database, spreadsheets, internet, and email to prepare elementary documents and reports. The impact of computers on society and ethical issues are presented. Leadership development will be provided through FBLA.
(1 credit) (Semester class)

Ethical Leadership - (grades 11-12) – Ethical Leadership is a principles-based ethics course introducing students to key leadership and ethical knowledge and skills, including integrity, trust, accountability, transparency, fairness, respect, rule of law, and viability. Throughout the course, students apply ethical principles to contemporary, real-world situations that teens and young adults often encounter in school, at home, with friends, and in entry-level job positions. They examine the concept of ethical leadership and strengthen their leadership and ethical decision-making skills through the planning, implementation, and evaluation of at least one class service-learning project. Leadership development will be provided through FBLA.

Financial Management - (grades 10-12) – The accounting principles taught in this course include an in-depth study of accounting principles, procedures, and techniques used in keeping financial records for sole proprietorships, partnerships, and corporations. There is an emphasis on automated accounting. Topics include a more analytical approach to accounting. Leadership development will be provided through FBLA. **Prerequisite: Accounting and Finance Foundations (1 credit) (Semester class)**

Fundamentals of Social Media Marketing - (grades 11-12) – This course cultivates a basic to intermediate understanding of social media history, terminology, and concepts as they apply to the marketing and business sectors. Integrates a working knowledge of platform management and simple social media marketing strategy. Students learn how to practice good marketing principles in an “electronic” marketing place. Decision-making and problem-solving skills are involved in such units as human relations, distribution, market information management, and product/service planning. The employment skills learned will improve and increase the chance of successful transition into the world of work. Leadership development will be provided through FBLA. **Prerequisite: Business and Marketing Essentials or Marketing Principles (1 credit) (Semester class)**

Introduction to Finance - (grades 11-12) – Introduction to Finance expands student understanding of finance. Students develop their knowledge and skills in such areas as business law, customer relations, economics, financial analysis, financial-information management, human resources management, operations, professional development, and strategic management. Emphasis is placed on topics including financial markets, services, and regulations, as well as the need for effective safety and security procedures and information management in finance. Current technology will be used to acquire information and to

complete activities. Throughout the course, students are presented ethical dilemmas and problem-solving situations for which they must apply academic and critical-thinking skills. Leadership development will be provided through FBLA.

Introduction to Management - (grades 10-12) – Introduction to Management expands student understanding of management. It exposes students to several types of management, including customer relationship management, human resources management, knowledge management, information management, project management, quality management, risk management, and strategic management. Business law, communication skills, economics, operations, and professional development are also stressed throughout the course. Current technology will be used to acquire information and to complete activities. Throughout the course, students are presented with ethical dilemmas and problem-solving situations for which they must apply academic and critical-thinking skills. Leadership development will be provided through FBLA.
Prerequisite: Business and Marketing Essentials, Digital Literacy, or Other introductory-level business or marketing course. (1 credit) (Semester class)

Marketing Principles - (grades 9-11) – Marketing Principles introduces students to the dynamic processes and activities in marketing. The course develops student understanding and skills in the functional areas of marketing, as well as business law, communication skills, customer relations, economics, human resources management, and operations. Current technology will be used to acquire information and to complete activities. Throughout the course, students are presented with ethical dilemmas and problem-solving situations for which they must apply academic and critical-thinking skills. Leadership development will be provided through FBLA.
(1 credit) (Semester class)

Microsoft Office Specialist - (grades 11-12) – This course is an extension of Digital Literacy. Students will have the opportunity to increase their computer skills. Advanced functions and integration of Microsoft Word, Excel, Access, and PowerPoint will be taught. Students will work toward MOS Certification in one or more of the Microsoft areas. In addition, students will utilize Internet access to complete various projects. Leadership development will be provided through FBLA. **Prerequisite: Digital Literacy or instructor permission (1 credit) (Semester class)**

Principles of Entrepreneurship - (grades 11-12) – Principles of Entrepreneurship introduces students to a wide array of entrepreneurial concepts and skills, including the role of entrepreneurship in our economy, entrepreneurial discovery processes, ideation, and preliminary start-up venture planning. Students also develop an appreciation for marketing's pivotal role in the development and success of a new business. They become acquainted with channel management, pricing, product/service management, and promotion. Students conduct thorough market planning for their ventures: selecting target markets; conducting market, SWOT, and competitive analyses; forecasting sales; setting marketing goals and objectives; selecting marketing metrics; and setting a marketing budget. The capstone activity in the course is the development of detailed marketing plans for students' startup businesses. Throughout the course, students are presented with ethical dilemmas and problem-solving situations for which they must apply academic and critical-thinking skills. Leadership development will be

provided through FBLA. **Prerequisite: Business and Marketing Essentials, Introduction to Management, or Other introductory-level business or marketing course. (1 credit) (Semester class)**

Education

Introduction to Education (EDU 103) - (grades 9-12) – This course is an introduction to teaching. The role of education in contemporary society, the history of education, and the nature of teaching is explored. This course is offered as a dual credit course through Midway University. Students enrolling in this course are responsible for all tuition and materials. **(1 credit) (Semester class)**

Introduction to Teacher Education Concentrations (EDU 108) - (grades 9 - 12) – This course is an introduction to teaching. Topics covered include: the role of education in contemporary society, the history of education, different philosophies, and objectives of elementary, middle, and high school education. The nature of the school learner, goals, academic expectations, and curriculum at each level are also studied in this course. This course is offered as a dual credit course through Midway University. Students enrolling in this course are responsible for all tuition and materials. **(1 credit) (Semester class)**

Developmental Psychology (EDU 260) – (grade 10 - 12) In this course students will develop an understanding of how students grow and develop from birth through death. This course will delve into the areas of emotional, physical, and cognitive development as well as study a few leading psychologists' theories and perspectives. This course is offered as a dual credit course through Midway University. Students enrolling in this course are responsible for all tuition and materials. **Prerequisite: EDU 103 and EDU 108 (1 credit) (Semester class)**

Collaborative Clinical Experience – (grade 11 - 12) In this course, Collaborative Clinical Experience, students will refine the required knowledge and skills to be an effective educator while also practicing the dispositions necessary for the educational profession. Specifically, students will gain an understanding of how teachers lead through individual and collaborative growth and reflection. **Prerequisite: EDU 103, EDU 108, and EDU 260 (1 credit) (Semester class)**

Engineering

Advanced Design Applications - (Grades 10-12) – This is a fundamental course that provides a project-based learning approach to understanding the principles and concepts of physics and associated mathematics for most Engineering Technology programs. Students explore various careers and disciplines of engineering areas, problem solving and core technology such as, but not limited to, manufacturing, power/energy/transportation, robotics, hydraulics, electricity/electronics, communications, construction systems, alternative energy and

computer-aided design. **(There is a \$20 charge for this class to cover tool upkeep and material costs.) Prerequisite: Engineering I and Engineering II (1 credit) (Semester class)**

Building Construction Technologies - (Grades 11-12) – This is an introduction to residential and light commercial building construction and design. Students will learn basic sketching, mechanical drafting skills with an emphasis on computer aided drafting. In this class, students will design a structure relevant to today's modern architecture and create models of their designs with various materials and tools. Students will experience and solve many problems in designing or building structures with regards to environment and community impact and limitations from town planning, urban design and landscape architecture to furniture and objects. **(There is a \$15 charge for this class to cover tool upkeep and material costs.)**

Prerequisite: Engineering I and II(1 credit) (Semester class)

Engineering I - (grades 9-11) Introduction to Computer-Aided Drafting and Engineering Design Principles. This course applies the skills, concepts, and principles of engineering. Students explore various technological systems and engineering processes in related career fields. Topics include investigating technological systems design optimization, and problem solving. Students utilize CAD and physical and virtual modeling concepts to construct, test, collect, and report data. This is the foundation class and prerequisite to all other engineering classes. Students will rigorously prepare for the industry certification exam for Autodesk Inventor. **(There is a \$20 cost for this class to cover tool upkeep and material costs.) (1 credit) (Semester class)**

Engineering II - (grades 10-12) – A project and research-based Computer Aided Drafting and Design course that extends the learning experiences where students focus on mechanical, electrical, fluid and thermal systems allowing in-depth exploration in selected disciplines of engineering areas such as mechanical drawing, manufacturing, power/energy/transportation, robotics, hydraulics, communications, construction systems, alternative energy and computer aided design and problem solving. Students will be offered the opportunity to complete a certification test for Autodesk Inventor if not completed in ED I. **(There is a \$20 charge for this class to cover tool upkeep and material costs.) Prerequisite: Engineering I (1 credit) (Semester class)**

Engineering Capstone - (grade 12) – This is a hands-on career readiness class. This curriculum will cover the world of materials around us that are used in several facets of industry. - We will also be using a variety of tools with different mediums. - The principles of design are required as each student must design a working set of blueprints for a project they will build. Students will get the opportunity to choose and focus on a specific career path to explore, helping make life decisions in regards to future employment. **There is a charge for materials in this class.**

Prerequisite: Completed three (3) Engineering courses (1 credit) (Semester Class)

Engineering and Engineering Technology Co-op - (grade 12) – Cooperative education is a paid educational program consisting of in school instruction combined with the program related on-the-job work experience in a business or industrial establishment. These are planned experiences supervised by the school and the employer to ensure that each phase contributes

to the students Individual Learning Plan (ILP). Refer to the KDE Work Based Learning Manual for further specifications. **Must have completed 3 other pathway classes. An application is necessary from Mr. Shearer. (1 credit)**

Engineering and Engineering Technology Internship - (grade 12) – Internship for CTE courses provides supervised work-site experience for high school students associated with their identified career pathway. Internship experiences consist of a combination of classroom instruction and field experiences. **Students must be transition ready to be considered. Must have completed 3 other pathway classes. An application is necessary from Mr. Shearer. (1 credit)**

English/Language Arts

English I - (grade 9) This course is designed to strengthen reading and comprehension skills for students seeking to improve their literacy abilities. It provides a supportive environment with differentiated instruction, strategies, and materials tailored to help students succeed. Students will engage with a variety of literature: poetry, informational texts, and a novel. Emphasis will also be placed on vocabulary development, as well as the use of both print and digital texts. Additionally, students will create projects, write papers, and complete other assignments to demonstrate their understanding. Correct grammar, usage, and mechanics will be reinforced in all areas of study. **(1 credit) (Semester class)**

Honors English I - (grade 9) This class is designed to challenge students through a variety of texts and writing. Students will engage in comprehensive literary analysis, exploring poetry, informational texts, and novels. This course encourages critical thinking and independence for students to demonstrate their knowledge and understanding. The expectation is for students to demonstrate a high level of responsibility, self-motivation, and decision to their work. **(Honor Course) Recommendation: A or B in 8th grade English or teacher recommendation. (1 credit) (Semester class)**

English II - (grade 10) – Focuses on a survey of literature, including short stories, poems, and plays. The curriculum will build analytical reading and writing skills over various genres and modes of writing. Students will continue to build on their writing skills learned in English I, including research and documentation skills. Throughout all units of study, students will learn how to apply correct grammar, usage, and mechanics and ask and answer literal, interpretive, and evaluative questions. Additional assignments include personal writing, creative writing, constructed response essays, oral presentations, and independent projects. This is a year-long course with students taking an End of Course Assessment upon completion of the course. **(1 credit) (Year-long class)**

Honors English II - (grade 10) – Students will concentrate on all units of study outlined in the English II course description. Students will participate in a more in-depth study of the literature and the history of the literature, as well as complete challenging out of class assignments. Major

presentations demonstrating knowledge of materials covered will also be a requirement. Honors English II is recommended for the serious student only. Assignments include: 2–4-page persuasive essay with research, personal writing, 4-5 page narrative writing, constructed responses, and literary analysis. Students will take an End of Course Assessment upon completion of the course. **Honors students will demonstrate intellectual curiosity, growth mindset, and intrinsic motivation necessary to succeed in an advanced class. (Honor Course) Recommendation: A or B in Honors English I or teacher recommendation. (1 credit) (Year-long class)**

English III - (grade 11) – While this course focuses on the study of American Literature, it not only examines the literature of the time period, but the history and its impact on the literature. This course also offers a thorough review of grammar, usage, and mechanics that students will use in compiling a cumulative writing folder and preparing for ACT and KSA testing. Students will extend their knowledge of argumentative writing to help prepare for on-demand testing by reviewing the writing components of an argument including claims, counterclaims, and rebuttals. Additionally, this course will prepare students for real-world writing and information analysis as they learn how to evaluate sources and shape their knowledge of the world. **(1 credit) (Year-long class)**

Honors English III - (grade 11) – This course is designed for the student who is willing to devote time to reading and writing on the advanced level. Students should already possess proficient grammar skills and the ability to write analytically and creatively. Honors English III is recommended for the serious student only. Students will focus on analyzing literature, will compose several analytical writing pieces, will compile a cumulative writing folder, and will prepare for both ACT and KSA testing. Students will extend their knowledge of argumentative writing to help prepare for on-demand testing by reviewing the writing components of an argument including claims, counterclaims, and rebuttals. Students will continually demonstrate their writing abilities and knowledge through in- and out-of-class assignments that focus on higher-order critical thinking. Furthermore, students will also complete class projects and prepare, deliver, and reflect on student presentations. **Responsibility is a key factor for success in this class. (Honor Course) Recommendation: A or B in Honors English II or teacher recommendation. Students in this class should be independent thinkers who are able to complete work in a timely fashion and make connections to other texts, current events, historical events, and to their own lives. English III is a highly tested class; therefore, the honors levels of this course is significantly more rigorous and requires more time of the student outside of the classroom. (1 credit) (Year-long class)**

English IV - (grade 12) – This is a semester-long class designed to equip seniors with the knowledge and skills they need as 21st-century scholars to prepare them for real-world learning and work experiences. Therefore, this course emphasizes developing critical thinking and information analysis skills to evaluate online and real-world information for accuracy and fallacies. With this, the course focuses on research and information writing, including the publication of essays, infographics, and other real-world writing components through the use of proper MLA and industry-standard documentation. In adhering to industry standards, students

will also concentrate on college and career preparation through creating polished resumes, compelling scholarship essays, and other career-focused writing materials. Furthermore, students will read numerous non-fiction and fiction materials and will complete assignments and assessments to improve their reading comprehension and to demonstrate their learning. Additionally, students enrolled in this class will focus throughout the semester on developing computer skills as well as other 21st-century skills such as time management, organization, problem-solving, and teamwork skills. **(1 credit) (Year-long class)**

English 100 – (grade 12) – English 101 focuses on academic writing and provides instruction in drafting and revising essays that express ideas in Standard English. The course emphasizes reading critically, thinking logically, responding to texts, addressing specific audiences, researching, and documenting sources. Coursework will include a review of grammar, mechanics, usage, and vocabulary development. Notes: (a) credit not available by special examination; (b) English 101 and 102 may not be taken concurrently. **Prerequisite: ACT ENG score of 18, appropriate writing placement score or ENC 091.**

English 200 - (grade 12) – English 200 emphasizes persuasive and argumentative writing and literary analyses. This course focuses on academic writing and provides instruction in drafting and revising essays that express ideas in Standard English. The course emphasizes reading critically, thinking logically, responding to texts, addressing specific audiences, researching, and documenting sources using MLA format. Course work will include a continued review of grammar, mechanics, usage, and vocabulary development. Notes: (a) credit not available by special examination; (b) English 101 and 102 may not be taken concurrently. **Prerequisite: ACT ENG score of 18, appropriate writing placement score or English 101. (1 credit) (Semester class)**

Students will take English 100 and History 105 first semester in place of two (2) high school courses. English 100 and English 200 will replace the regular senior English IV course. The cost of each college course will be approximately \$172 for tuition plus the cost of books. Books can run over \$100 for each course. If the course is a full year course, it must be paid for at the beginning of the school year. If the course is a semester course, it must be paid for at the beginning of each semester—as soon as school starts and as soon as we return from Christmas break. During the 2nd semester, students who successfully pass the 6 hours of college courses will then take English 200 and History 110 in the spring semester. All of the above costs will also apply to the 2nd semester courses.

Journalism I & II - (grades 10-12) – Students will be responsible for completion of the current yearbook as well as be required to write and edit articles for publication. Photography, copywriting, designing layouts, sales and distribution are included in job assignments. Students must be able to work well with others, complete independent assignments and meet deadlines. **Members of the staff must make themselves available to attend a variety of school functions after school and on weekends to cover them for the yearbook publication.** Students will learn management duties such as organization, sales and distribution, page design and layout, and managing staff. Students must apply to the journalism teacher. **(1 credit) (Year-long class)**

Literacy - (grades 9-10) – This Literacy Class has been established to help students who have not met benchmark scores for readiness based on MAP testing in reading and/or English. This class will also reinforce the skills needed to be more successful by stressing organizational skills along with study skills and time management. Students will be given any extra academic attention they need in reading and writing to ensure their success as a student and to work toward meeting benchmark scores on the ACT for college and career readiness. **(1 credit) (Semester class)**

Practical Skills of Tutoring Writing I & II - (grades 11-12) – This course will introduce students to the theory and practice of peer-to-peer writing tutoring. Student work will focus on the Writing Center at HCHS. Being a writing center tutor is about more than just knowing grammar and revising papers. Peer tutors will base their practice on research-based techniques and theories that promote critical thinking and the understanding of writing as a process. Writing center tutors do not need to be writing experts in all types of writing, but they do need to understand the writing process, possess good interpersonal and presentation skills, and be able to work independently. *Application required.* **(1 credit) (Semester class)**

English Electives (can be English electives or possibly Humanities)

Women in Literature (semester) This elective course explores a diverse array of literature written by notable female authors from the English literary tradition. Through a comprehensive survey of poems, short stories, and novels, students will engage with the evolution of women's voices in literature, examining both the legacy of individual authors and the ways in which the feminine experience is portrayed in their works.

The course will also focus on honing students' analytical and writing skills, encouraging them to examine literary works from multiple perspectives—historical, social, and feminist. By analyzing both the content and form of selected texts, students will deepen their understanding of how women have shaped and challenged the literary canon. **(semester)**

Holocaust Literature and Film Elective (Humanities/Social Studies/English)

This elective course, *Holocaust Literature and Film*, offers students a profound exploration of one of history's most significant tragedies through the lens of literature, memoirs, and cinematic adaptations. Students will engage with texts such as *Maus* by Art Spiegelman and *The Diary of a Young Girl* by Anne Frank, alongside films like *The Pianist* and *Life is Beautiful*, to gain insight into the human experiences of survival, resistance, and remembrance. Through critical analysis and reflective discussion, the course will explore themes of prejudice, resilience, and moral responsibility, encouraging students to connect historical lessons to contemporary issues. Designed to foster empathy and critical thinking, this course aligns with social studies and English standards while offering a unique interdisciplinary perspective. **(semester)**

Societal Issues in Literature Elective (Humanities/English)

This elective course, *Societal Issues in Literature*, invites students to examine how literature reflects, critiques, and influences societal structures and values. Through novels such as *1984* by George Orwell, *The Handmaid's Tale* by Margaret Atwood, and *Fahrenheit 451* by Ray Bradbury, students will explore themes of government control, social justice, and individual freedom. The course will also include contemporary works and essays that highlight issues like systemic inequality, environmental concerns, and cultural identity. By engaging in critical analysis, class discussions, and creative projects, students will develop a deeper understanding of how literature can serve as a mirror to society and a catalyst for change. This course empowers students to think critically about the world around them and their roles as informed citizens. **(semester)**

Art History Elective: Artists and Their Masterworks (Humanities/Art)

This elective course, *Artists and Their Masterworks*, offers students an in-depth exploration of art history through the lens of specific artists and their most iconic works. Rather than following a chronological timeline, the course focuses on influential figures such as Leonardo da Vinci, Frida Kahlo, Vincent van Gogh, Yayoi Kusama, and Jean-Michel Basquiat, analyzing their artistic styles, cultural contexts, and lasting impact on the art world. Students will engage with pieces like *The Starry Night*, *The Two Fridas*, and *Infinity Mirror Rooms*, using these works as a gateway to discuss broader themes like identity, innovation, and social commentary. Through interactive activities, critical discussions, and creative projects, students will develop an appreciation for art as both a personal expression and a reflection of its time. This course aims to inspire critical thinking, creativity, and a deeper connection to the power of art in shaping society. **(semester)**

Health and Physical Education

Advanced Fitness Concepts - (grades 10-12) – This class is a one credit class for a semester designed for students to learn multiple areas of physical fitness including: weight training, cardiovascular strength and endurance, core strength, plyometric and isokinetic exercises. Students will be actively involved in the training, so they would need to dress out each day. Students will also need to participate daily in rigorous exercises designed to improve life-long health and athletic performance. **Prerequisite is a passing grade in PE I. Students may take this class up to two times. Must have an A in class first time to qualify to take it the second time. (1 credit) (Semester class)**

Health - (grade 9) – Health education is designed to communicate information and teach students skills that can help them attain a high degree of wellness throughout life. Areas of instruction include nutrition; mental, emotional, social and physical wellness; infectious and non-infectious diseases; drug, alcohol, and tobacco awareness; reproduction and the life cycle; and safety and first aid. **(1/2 credit-This course is taught with Physical Education.) (Semester class)**

Physical Education - (grade 9) – Students will learn warm-up exercises to prevent injury. They will learn the concepts of sportsmanship and team play. They will learn rules and objects of a variety of team and individual sports. **(1/2 credit-This course is taught with Health.) (Semester class)**

Physical Education II - (grades 10-12) – Students will learn more about the concepts and strategies of team play. Students will have a higher level of understanding of the rules and objects of a variety of team sports. **Students may take this class up to two times. Must have an A in class first time to qualify to take it the second time. (1 credit) (Semester class)**

Health Sciences

Students who enroll in Health Science classes are eligible to participate in HOSA (Health Occupation Student Organization). The KYTech Medicaid Nurse Assistant (MNA) Certificate may be attained through the Pre-Nursing career pathway.

AHS 105 Principles of Health Sciences - (Grades 9-12) – This course is an orientation to the healthcare cluster consisting of four career majors: Nursing, Medicine, Dentistry and Allied Health. It is also designated to develop and enhance an understanding of the responsibilities and roles of each career major area. Communication, study, and leadership skills will be emphasized as the student learns about the healthcare industry, healthcare economics and career opportunities available. Medical Terminology will be integrated throughout the course. Upon successful completion of this course, the student will be able to focus on a career major path and make informed decisions regarding choices for continuing education and/or employment. This course addresses the Kentucky Learner Goals and Academic Expectations, Core content for Assessment and includes core components from the National Healthcare Skills Standards. **Dual credit with Jefferson Community and Technical College is awarded for these courses. Students enrolling in dual credit courses are responsible for paying tuition. Students must complete this course with an average of 75% or higher for credits to articulate and to remain in the program. (1 credit) (Semester class)**

AHS 115 Medical Terminology - (Grades 9-12) – This course is a study of medical terms and their origins. Emphasis is given to the correct interpretation of medical terms and their applications in the medical profession. **Dual credit with Jefferson Community and Technical College is awarded for these courses. Students enrolling in dual credit courses are responsible for paying tuition. Students must complete the course with an average of 75% or higher for credits to articulate.** This course qualifies for dual credit. **(1 Credit) (Semester class—paired with Emergency Procedures)**

Allied Health Core Skills - (Grades 11-12) This course is designed to provide knowledge, concepts and psychomotor skills necessary for gainful employment as an entry-level healthcare worker. Assisting students in selecting a career major, classroom instruction and educational

objectives are combined with learning experiences, observations, and a work-based learning opportunity such as internship, shadowing, or clinical rotation. This course is designed for students not enrolled in the Medicaid Nurse Aide program or the Patient Care Technician program. **Prerequisite: Completion of 1st year Health Science course (1 credit) (Semester class)**

Anatomy (science course) - (grades 12) – This course is designed to give students interested in pursuing a career in medicine, nursing or science a base of knowledge beyond biology to build on. Structure and function of all human systems will be covered. Students will be required to work as cooperative group members producing models, projects, and completed dissections. **(Honor Course) Prerequisite: successful completion of Biology I with a "B" average or higher. (1 credit) (Semester class)**

Emergency Procedures/CPR and First Aid - (Grades 9-12) – This course will focus on current emergency techniques relative to cardiac and/or respiratory arrest and emergency situations. It is designed to promote an understanding of Universal Precautions/Standard Precautions necessary for personal professionals' health maintenance and infection control. Medical Terminology will be integrated throughout the course. Upon successful completion of this course, the student may become trained in Safety/First Aid and Cardiopulmonary Resuscitation (CPR), as required by the American Red Cross, the American Heart Association, The National Safety Council-Green Cross or the National Safety Council. *Students must complete the course with an average of 75% or higher for credits to articulate. (1/2 credit) (Semester class—paired with Medical Terminology)*

Medical Math – (grades 10-12) – This course is designed to focus, utilize and build on mathematical skills commonly used in all health occupations. Students will use applied techniques, computations, ratio and proportion, weights and measurements and conversions. This course is strongly recommended for all Health Science Majors. **Prerequisite: Successful completion of Principles of Health and successful completion of Algebra I. (1 credit) (Semester class)**

NAA 100 Medicaid Nurse Aid (MNA) - (Grades 11-12) – This course provides knowledge and skills for nurse aides to assume the role and responsibility required to care for the elderly resident in long-term nursing home care. The focus of the course is communication, infection control, safety, residents' rights, and basic nursing skills. Students complete a minimum of 16 hours of clinical rotation in various local healthcare facilities. Upon completion students are able to sit for the **SRNA (State Registered Nurse Assessment)** certification exam. *Students must complete the course with an average of 75% or higher for credits to articulate. Students must also have at least an average of 70% on 3 exams to be able to sit for the State Exam.* This course qualifies for dual credit. **Dual credit with Jefferson Community and Technical College is awarded for these courses. Students enrolling in dual credit courses are responsible for paying tuition. Prerequisite: Completion of 1st year Principles of Health Science course with a B or higher. (AHS 105)(1 credit) (Year-long class)**

Mathematics

Algebra I - (grade 9) – This course is the study of high school Algebra 1 content. Upon completion of the course, students should be able to represent relationships mathematically, develop fluency in writing, interpret expressions and equations, translate between various forms of linear equations and inequalities and use them to solve problems including those that require a system of equations, solve linear equations, apply related solution techniques and the laws of exponents to solve simple exponential equations, understand function definition and notation, contrast linear and exponential graphical representations, make judgments about the appropriateness of linear models, perform arithmetic operations on inequalities, interpret functions and fluently use function notation, construct and compare linear and exponential models and solve related problems, factor quadratic and cubic expressions solve quadratic equations to interpret related quadratic functions and explore non-linear relationships. This course should be designed to meet the high school graduation credit for Algebra 1 and to build a solid foundation necessary for future high school math courses. **(1 credit) (Year-long)**

Honors Algebra I - (grade 9) – Students will be recommended for this class based on MAP math scores, assessment of basic algebra skills, successful completion of all 8th grade math standards, and teacher recommendation. **(Honor Course) (1 credit) (Year-long class)**

Algebra II - (grades 10-12) – This course is the study of high school Algebra 2 content. Upon completion of the course, students should be able to use properties of numerical operations to perform calculations involving polynomials, identify zeros of polynomials and make connections between zeros of polynomials and solutions of geometry to extend trigonometry to model periodic phenomena, work with a variety of function families exploring the effects of transformations, analyze functions using different representations, build, interpret and compare functions including square root, cube root, piece-wise, trigonometric and logarithmic functions, identify appropriate functions to model situations, adjust parameters to improve the models, and compare models by analyzing appropriateness of fit. **(1 credit) (semester class)**

Honors Algebra II - (grades 10-12) – Honors Algebra II is recommended for those students who successfully complete Honors Algebra I/Honors Geometry (C or higher), Proficient or Distinguished on final interim test, and/or teacher recommendation. Students may take Honors Algebra II and Honors Geometry as sophomores to take Calculus as seniors. **(Honor Course) (1 credit) (semester class)**

Geometry - (grades 10-12) – This course will start out with additional algebra concepts needed to fulfill the algebra requirements for graduation and lead into the study of the high school Geometry content. Upon completion of the course, students should be able to prove theorems and solve problems about triangles, quadrilaterals, and other polygons, apply reasoning to complete geometric constructions and explanations, establish triangle congruence criteria based on analyses of rigid motions and formal constructions, use proportionality and similarity to solve problems and apply similarity in right triangles to understand right triangle trigonometry (with particular attention to special right triangles and the Pythagorean theorem),

develop the Law of Sines and Cosines from understanding relationships in right triangles, apply knowledge of two-dimensional shapes to consider the shapes of cross-sections and the result of rotating a two-dimensional object about a line, connect algebraic concepts to geometric concepts through the rectangular coordinate system (such as deriving the equation of a circle given the center and radius length using the distance formula or Pythagorean Theorem) and prove basic theorems about circles, chords, secants, and tangents. **(1 credit) (Year-long Class)**

Honors Geometry - (grades 10-12) – Honors Geometry is recommended for those students who have successfully completed Honors Algebra I (C or higher), a Proficient or Distinguished score on the final Algebra I 9th grade interim test, and/or teacher recommendation. This course will start out with additional algebra concepts needed to fulfill the algebra requirements for graduation and lead into the study of the high school Geometry content. Students may take Honors Algebra II and Honors Geometry as sophomores to take Calculus as seniors. **(Honor Course) (1 credit) (Year-long Class)**

MAT 146 Contemporary College Mathematics - (grade 11-12) – Serves as a course in quantitative reasoning and problem solving intended for non-science majors. Includes voting methods, finance, population growth, and at least two additional topics chosen from: apportionment, geometry, logic, probability and statistics, graph theory, number theory, game theory, and set theory. **Dual Credit (3 credit hours) through JCTC. Students will be responsible for buying the book and/or other fees associated with the class (Approximately \$85 – but cost could vary).** Prerequisite: Minimum ACT Math score of 19 or a 3.0 GPA **(1 credit) (Semester class)**

MAT 150 College Algebra - (grade 11-12) – Includes selected topics in algebra and analytic geometry. Develops manipulative skills and concepts required for further study in mathematics. Includes linear, quadratic, polynomial, rational, exponential, logarithmic and piecewise functions; systems of equations; and an introduction to analytic geometry. **Dual Credit (3 credit hours) through JCTC. Students will be responsible for buying the book and/or other fees associated with the class (Approximately \$85 – but cost could vary).** Prerequisite: Minimum ACT Math score of 22 or a 3.2 GPA **(1 credit) (Semester class)**

MAT 155 Trigonometry - (grade 11-12) – Includes the trigonometric functions, identities, multiple analytic formulas, laws of sines and cosines, graphs of trigonometric functions in rectangular and polar coordinates, and solving trigonometric equations. Emphasizes applications in each topic. **Dual Credit (3 credit hours) through JCTC. Students will be responsible for buying the book and/or other fees associated with the class (Approximately \$85 – but cost could vary).** Prerequisite: Minimum ACT Math score of 22 or a 3.2 GPA **(1 credit) (Semester class)**

MAT 174 Calculus I - (grade 11-12) – Examines one-variable calculus including limits, differentiation and integration of algebraic, trigonometric, exponential, logarithmic, hyperbolic, and inverse trigonometric functions with applications. **Dual Credit (3 credit hours) through JCTC. Students will be responsible for buying the book and/or other fees associated with the**

class (Approximately \$85 – but cost could vary). Prerequisite: College Algebra and Trigonometry with grade of “C” or higher or minimum ACT Math score of 27 (1 credit) (Semester class)

Personal Finance - (grade 12) – This course enables the student to explore mathematical content for personal, business, and industrial use. Math concepts and skills applied through study and problem-solving activities in real-world situations in the following areas: banking, measurement, borrowing and investing, consumer purchases, and financial management. Appropriate business forms are used in each unit. Leadership development will be provided through FBLA. **This course is approved as a fourth math credit after Algebra I, Algebra II, and Geometry. (1 credit) (Semester class)**

STA 220 Statistics - (grade 11-12) – Examines statistical description of sample data including frequency distributions, measures of central tendency, and measures of dispersion. Includes theoretical distributions, statistical estimation, and hypothesis testing. Introduces simple linear regression and correlation. **Dual Credit (3 credit hours) through JCTC. Students will be responsible for buying the book and/or other fees associated with the class (Approximately \$85 – but cost could vary). Prerequisite: MAT 150 or MAT 146 with grade of “C” or higher (1 credit) (Semester class)**

History of Science and Mathematics - (grades 11-12) - Our modern world is built on a foundation of mathematics, science, and technology. How did we get here? This course investigates how human beings have used reason, calculation, and experimentation to explain and manipulate the natural world from the ancient period to the present. We will locate the Scientific Revolution of the 1500s and 1600s and the modern physical and mathematical sciences that it inspired within an older, multicultural story of science history. We will also explore how science and technology have transformed politics, economies, and societies in world history. Note: While mathematics is a key element of this course, the focus is not on being able to perform mathematics; rather, to understand how math has evolved to solve complex problems. This is not a traditional “do math problems” type of mathematics class. **Prerequisite: successful completion of Geometry or Honors Geometry with a “B” average or higher. (1 credit) (Semester class)**

Media Arts

Introduction to Media Arts - (grades 9-12) – An introduction to and survey of the creative and conceptual aspects of designing media arts experiences and products, including techniques, genres and styles from various and combined mediums and forms, including video, sound, graphic design and photography. Students will focus heavily on learning and mastering Photoshop and beginning to learn the basics of Premiere Pro. These two programs are the industry standard when it comes to graphic design and video editing. Some participation in after-school broadcasting events may be required of each student in this course. **(1 credit) (Semester class)**

Video Studio Fundamentals - (grades 10-12) – This Course will continue where Intro to Media Arts left off. We will continue to grow our knowledge of the Premiere Pro software. This course will expose students to the materials, processes, and artistic techniques involved in creating video productions. Students learn about the operation of cameras, lighting techniques, camera angles, depth of field, composition, storyboarding, sound capture and editing techniques. Course topics may include production values and various forms/styles of video production (e.g., documentary, storytelling, news magazines, animation, etc.) As students advance they are encouraged to develop their own artistic styles. Major cinematographers, video artists, screenwriters and their work may be studied. Some participation in after-school broadcasting events will be required of each student in this course. **Prerequisite: Introduction to Media Arts (1 credit) (Semester class)**

Studio Directing and Performance - (grades 10-12) – This course explores the role of managing the production of video studio projects. Students develop knowledge and skills in studio multi-camera and field television production. Students also develop performance skills for broadcasting including interpretation of copy, news casting, and ad lib announcing. The course covers techniques of narrative and non-fiction writing and scripting, the analysis and writing of radio, television, and video materials, including storytelling and screenwriting. Students will participate in extensive video projects including various short films, interviews, and multi-camera projects. Participation in after-school broadcasting events will be required of each student in this course. **Prerequisite: Video Studio Fundamentals (1 credit) (Fall Semester class)**

Advanced Studio Production - (grades 11-12) – Students will explore the creative and conceptual aspects of designing and producing moving images for the variety of cinematic, film/video and multimedia presentations including: fictional dramas, documentaries, music videos, artistic and experimental presentations and/or installations, interactive, news and performance media, etc. Students will participate in extensive video projects including short films, podcasts and a school news program. Participation in after-school broadcasting events will be required of each student in this course. Students in this course will be tasked with creating video and graphic content for HCPS as a whole. This can range from videos highlighting the various schools in our district to graphics that help celebrate all the awesome things that happen in HCPS. This class requires students to be able to work as a team and to work on assignments without the teacher guiding them every step of the way. **Prerequisite: Video Studio Fundamentals (1 credit) (Spring Semester class)**

Science

Conceptual Progression I - (grade 9) – Students develop a conceptual understanding of Earth/Space science including Earth’s formation, changing structure, and the processes responsible for those changes, as well as solar system formation and mechanics. An in-depth study of the various cycles that occur within Earth’s ecosystems is studied along with natural resource use and distribution. Students will learn these core ideas through the use of the science and engineering practices and crosscutting concepts. The science and engineering practices are skills students will use as they investigate the natural world and develop solutions to problems. The crosscutting concepts are conceptual ways of thinking that cross the domains of science. **(1 credit) (Semester class)**

Honors Conceptual Progression I - (grade 9) – Students develop a conceptual understanding of Earth/Space science including Earth’s formation, changing structure, and the processes responsible for those changes, as well as solar system formation and mechanics. An in-depth study of the various cycles that occur within Earth’s ecosystems is studied along with natural resource use and distribution. Students will learn these core ideas through the use of the science and engineering practices and crosscutting concepts. The science and engineering practices are skills students will use as they investigate the natural world and develop solutions to problems. The crosscutting concepts are conceptual ways of thinking that cross the domains of science. **(Honors Course) (1 credit) (Semester class)**

Conceptual Progression II - (grade 10) – Students develop a conceptual understanding of Biology and Ecology. They experience biology and ecological science concepts, as outlined in the Kentucky Academic Standards for Science, such as structure and function of cells; molecular basis of heredity; biological change; changes in the Earth system; interdependence of organisms; matter, energy, and organization in living systems; and the behavior of organisms. Students will learn these core ideas through the use of the science and engineering practices and crosscutting concepts. The science and engineering practices are the skills students will use as they investigate the natural world and develop solutions to problems. The crosscutting concepts are conceptual ways of thinking that cross the domains of science. **(1 credit) (Semester class)**

Honors Conceptual Progression II - (grade 10) – Students develop a conceptual understanding of Biology and Earth/Space Science. They experience biology and Earth/space science concepts, as outlined in the Kentucky Academic Standards for Science, such as structure and function of cells; molecular basis of heredity; biological change; changes in the Earth system; interdependence of organisms; matter, energy and organization in living systems; and the behavior of organisms. Students will learn these core ideas through the use of the science and engineering practices and crosscutting concepts. The science and engineering practices are the skills students will use as they investigate the natural world, and develop solutions to problems. The crosscutting concepts are conceptual ways of thinking that cross the domains of science. **(Honors Course) Recommendation: A or B in Conceptual Progression I and teacher recommendation. (1 credit) (Semester Class)**

Conceptual Progression III - (grade 11) – Students develop a conceptual understanding of Chemistry and Physics through a series of hands-on problems and labs. Students will learn these core ideas through the use of the science and engineering practices and crosscutting concepts. The science and engineering practices are the skills students will use as they investigate the natural world and develop solutions to problems. The crosscutting concepts are conceptual ways of thinking that cross the domains of science. Students will take this course OR Chemistry and Physics. **(1 credit) (Year-long class)**

CHEM 101: A Survey of Chemistry. A survey of chemical topics that includes describing and applying atomic structure concepts to the particulate nature of matter; identifying and relating periodic table trends to atomic structure; using basic nomenclature rules for inorganic compounds; using conservation of matter and energy with stoichiometry for chemical reactions; articulating relationships between molecular structure, bonding and intra- and intermolecular forces.

BIOL 105: Biology for your life. An introduction to biological chemistry, cell structure and function, ecology, evolution, organismal diversity, reproduction and genetics.

Science Electives

Forensic Science - (grades 11-12) – The class will provide content, extensive lab experiences and application of the sciences in solving crime and providing correct, consistent evidence in a court of law. The course focuses on the skills and concepts behind crime scene investigation as well as scientific observation and reasoning. This course will review a wide range of science concepts such as physics, chemistry, biology and earth science. This course will also provide an overview of careers and training requirements for crime scene investigations. **Prerequisite: successful completion of Conceptual Progression I and II with a “B” average or higher. (1 credit) (Semester class)**

History of Science and Mathematics - (grades 11-12) - Our modern world is built on a foundation of mathematics, science, and technology. How did we get here? This course investigates how human beings have used reason, calculation, and experimentation to explain and manipulate the natural world from the ancient period to the present. We will locate the Scientific Revolution of the 1500s and 1600s and the modern physical and mathematical sciences that it inspired within an older, multicultural story of science history. We will also explore how science and technology have transformed politics, economies, and societies in world history. Note: While mathematics is a key element of this course, the focus is not on being able to perform mathematics; rather, to understand how math has evolved to solve complex problems. This is not a traditional “do math problems” type of mathematics class. **Prerequisite: successful completion of Geometry or Honors Geometry with a “B” average or higher. (1 credit) (Semester class)**

Social Studies

Integrated Social Studies I - (grade 9) – Focusing on world developments from antiquity through the Enlightenment, this semester-long course extends student knowledge by drawing on concepts from history, geography, political science, and economics. **(1 credit) (Semester class)**

Honors Integrated Social Studies I - (grade 9) – Focusing on the world from antiquity through the Enlightenment, this semester-long course extends student knowledge of the world by drawing on concepts from history, geography, political science, and economics. This course emphasizes increased rigor in student assignments as students will be expected to analyze primary sources. It is required that students have achieved a grade of B or higher in 8th grade social studies and has a teacher recommendation before enrolling in Honors Integrated Social Studies I. **(Honors Course) (1 credit) (Semester class)**

Integrated Social Studies II - (grade 10) – This semester-long course is designed to give students an introduction to history from the Enlightenment era and the birth of democracy to the start of World War I. Focusing on critical components of World History and American History, this class covers the birth of American government, the cause and effects of the Civil War, westward expansion as well as the age of global revolution and the rise and fall of imperialism. Students will use this knowledge of history to see America's rise on the global stage and how past events affect the world we live in today. **(1 credit) (Semester class)**

Honors Integrated Social Studies II - (grade 10) – This semester-long course is designed to give students an introduction to history from the Enlightenment era and the birth of democracy to the start of World War I. The class will emphasize increased rigor in student assignments as students will analyze primary sources. It is required that students have achieved a grade of a B or higher in 9th Integrated Social Studies and have a teacher recommendation before enrolling. Due to the fact that the course incorporates an increased level of reading and writing, it is recommended that students possess proficiency in reading (MAP, KPREP), proficiency in writing as indicated by an ability to write an analytical essay (thesis, supporting detail, summary), the ability to analyze and interpret primary source documents (maps, tables, graphs, essays, articles, etc.), and the ability to discern various interpretations of historical issues in secondary sources. **(Honors Course) Prerequisite: Teacher recommendation; must have a B or higher in Integrated Social Studies I (1 credit) (Semester class)**

Integrated Social Studies III - (grade 11) – This year-long course covers the entire scope of World History and American History from the start of World War I to the modern era. Attention is given to people, politics, economics, diplomacy, and social aspects of World and American History. Special focus will be given to the events and people that shape our world today. **(1 credit) (Year-long class)**

Honors US History/HIS 140 and HIS 141 - (grade 11) – This is a dual credit class for college credit. This two-semester sequence of courses will incorporate all components of US History

from the pre-Columbian era through modern day. There will be an added emphasis on rigor. Due to the fact that the course incorporates an increased level of reading and writing, it is recommended that students possess proficiency in reading (MAP, KPREP), proficiency in writing as indicated by an ability to write an analytical essay (thesis, supporting detail, summary), the ability to analyze and interpret primary source documents (maps, tables, graphs, essays, articles, etc.), and the ability to discern various interpretations of historical issues in secondary sources. Students will be required to purchase the college textbooks and a significant amount of outside work should be expected. **(Honor Course) Prerequisite: Teacher recommendation; must have a B or higher in Integrated Social Studies II. Students must take both classes (1 credit) (Year-long class)**

Social Studies Electives

HST 261 and HST 271 - (grade 12) – History of Europe from the Mid-Seventeenth Century to the Present (3 hours college credit)—This course surveys the development of European politics, society, and culture from the Age of Absolutism to the present. **Prerequisite: ACT Reading score of 20 and a composite score of 18, or COMPASS placement score. (1 credit) (Semester class)**

Introduction to American Government - (grades 11-12) – This semester-long course introduces students to different types of governments, issues and features of American government, the relationships between governments, the US Constitution, political parties, and political theories. **(1 credit) (Semester class)**

Psychology - (grades 11-12) – This semester-long course is a comprehensive introductory level study of Psychology. This study includes: 1) An introduction to the field of psychology and many of the core concepts used in studying, analyzing, and describing human psychology. 2) Analyzing the relationship between human physiology and psychology. 3) Understanding the different levels of consciousness. 4) Exploring aspects of learning, memory, and thought. **(1 credit) (Semester class)**

Sociology - (grades 11-12) – This is the study of human society. Students will explore methods of inquiry, social structure, social relationships, and social institutions such as family, education and religion. **(1 credit) (Semester class)**

World Geography - (grades 11-12) – This course is dedicated to studying the world around us. The class starts with an introduction to geography. Students will learn the five themes of geography, the features that define the earth, climate patterns of the earth, how to study people and cultures of the earth, and how to use various geographic tools. Students will apply the skills learned to the ten areas of the world being studied. The students will look at the physical features of those areas (land, climate, and types of vegetation). Each area will be addressed in terms of its culture, including studies of population patterns, history and government, and cultures/lifestyles. The final area to be addressed is current news, which includes current living conditions, current news events, and how people interact with their environment. **(1 credit) (Semester class)**

World Languages

Spanish I - (grades 9-12) – Spanish I gives the student a solid introduction to the language. It introduces the student to pronunciation and basic vocabulary and grammar for describing their daily lives. Students will also study many cultural aspects of several different Spanish-speaking countries. **(1 credit) (Semester class)**

Spanish II - (grades 9-12) – Spanish II students will continue to study present tense descriptions of their daily lives and be introduced to past tenses and other more complicated sentence structures. They will communicate daily in Spanish and continue to study the cultures of different Spanish-speaking countries. Prerequisite: Students must pass Spanish I with a D or better. **(1 credit) (Semester class)**

Dual Credit Spanish 125 Midway University - (grades 10-12) – This course is a fast-paced review and expansion of the topics students learned in Spanish 1 & 2. Students will widen their vocabulary and polish their grammar so that they can more confidently and fluidly discuss topics related to daily life in Spanish. Additionally, students will deepen their exploration of the cultures and contributions of several Spanish-speaking countries. Maintaining a B average or higher in this course qualifies students for membership in the Spanish Honor Society (*Sociedad Honoraria Hispánica*). Prerequisite: Student must pass Spanish 1 & 2 with a minimum of a C average. *The cost of each college course will be approximately \$172 for tuition plus the cost of any books required.* **(Honor class) (1 credit) (Semester class)**

Dual Credit Spanish 126 Midway University - (grades 10-12) – Continuing the at the rapid rate of Spanish 101, students will add to their ability to navigate and meet basic needs in a Spanish immersion environment. Topics covered will include how to obtain appropriate food, clothing, and healthcare in Spanish. Also, students will continue to explore Hispanic cultures (including music, art, film, and literature, as well as traditional customs). Prerequisite: Student must pass Dual Credit Spanish 125. *The cost of each college course will be approximately \$172 for tuition plus the cost of any books required.* **(Honor class) (1 credit) (Semester class)**

Additional Electives

Career Development - (grade 12) – Students enrolled in Career Development will have the opportunity to learn career related skills on paid and non-paid job sites. Each site will be monitored by the teacher and assistance will be given to make the placement successful. Students will be required to complete a career portfolio. **Prerequisite: Students must be transition ready to be considered. Teacher recommendation and driver's license. (1 credit) (Semester class)**

Applied Leadership in MSD Education - (grades 10-12) – Applied Leadership in MSD Education is a hands-on leadership course where students take on meaningful roles supporting peers in the Moderate to Severe Disabilities (MSD) classroom. Students will learn how to plan and adapt lessons, assist with academic tasks, and support life skills development while building strong interpersonal relationships. This course emphasizes communication, empathy, collaboration, and problem-solving, giving students real-world leadership experience in an inclusive educational setting. Through guided practice, reflection, and mentorship, students will gain a deeper understanding of diverse needs, build confidence in their ability to lead, and make a lasting impact on their school community. **(1 credit) (Semester class—may be taken one or both semesters)**

Library Aide Career Development - (grades 11-12) This class is designed to equip students with skills necessary to complete basic job assignments of event planning, organizing, maintaining records, decorating, managing daily library tasks, and helping teachers and students. Library aides are responsible for assisting with the administration and organization of the HCHS Media Center to ensure smooth and efficient operation of the library services and resources. Duties and responsibilities will include things like shelving books, tracking inventory, processing new materials, supervising/teaching/helping others with literacy or technology, and helping to plan and execute various events. **Prerequisite: Application required. (1 credit) (Semester class—may be taken one or both semesters)**

Wildcat IT Help Desk - (grades 10-12) - This class requires student technicians to get HP certified, help keep the school's technology running smoothly and efficiently, and run the Wildcat IT Help Desk located in the HCHS Media Center. Running the Help Desk involves tracking work order tickets, making phone calls, troubleshooting and repairing Chromebooks and other technology (both hardware and software), and answering questions on all matters of technologies (examples include providing login assistance, helping with printers, software installation, upgrades, registering devices to the network, etc.) Students will be trained by the HCPS district IT staff and will learn basic customer service including how to speak to and help patrons in a professional manner. **Previous technology experience is preferred, but not required.**

Carroll County Area Technology Center

Vision and Belief Statements

Here to Train, Grow to Go!

Vision

To have an established roadmap into our high wage, high demand regional workforce.

Mission

To provide an exceptional training environment to drive student success and workforce development.

Allied Health and Health Sciences

Pathway Offerings

Clinical Medical Assisting

This pathway prepares individuals, under the supervision of physicians, to provide medical office administrative services and perform clinical duties including patient intake and care, routine diagnostic and recording procedures, pre-examination and examination assistance, and the administration of medications and first aid. Includes instruction in basic anatomy and physiology; medical terminology; medical law and ethics; patient psychology and communications; medical office procedures; and clinical diagnostic, examination, testing, and treatment procedures.

Course Sequence

Healthcare Delivery and Management (HST 102)

Leadership Dynamics

Medical Terminology (AHS 115)

Certified Medical Assisting Dosage Calculations (MAI 170)

Upon successful completion of Healthcare Delivery Management (HST 102) and Medical Terminology (AHS 115), students who are enrolled in the 2nd year of the program will have the opportunity to sit for the Clinical Medical Assisting certification.

Pre-Nursing

This pathway prepares individuals for admission to a professional program in nursing. This pathway focuses on caring for residents in a long-term care facility.

Course Sequence

Healthcare Delivery and Management (HST 102)

Leadership Dynamics

Medical Terminology (AHS 115)

Medicaid Nursing Aide (NAA 100)

Healthcare Communications (HST 103)

Students who successfully complete this program will have the opportunity to sit for the Medicaid Nursing Aide exam.

Additional Pathways: Students have the option of earning additional career certifications is the following pathways. To be eligible, students must first complete the Pre-Nursing or Clinical Medical Assisting Pathways.

EKG Technician
Phlebotomy
Pharmacy Technician

Allied Health and Health Sciences Course Descriptions

170550 – Allied Health Internship Grade Level: 11-12 Credits: 1

Course Description: The internship provides supervised on-the-job work experience related to the students' education objectives. Work-based learning is designed to complement the classroom instruction. Students will be required to follow program and agency requirements for attendance and health screenings. These may include but are not limited to: drug screens, TB skin test, and immunization certificates.

Prerequisites: Principles of Health Science – 170111 Medical Terminology – 170131 Emergency Procedures - 170141 or Permission of Instructor This course may be repeated to accommodate multiple experiences in a variety of healthcare settings.

170501 – Allied Health Core Skills Grade Level: 9-12 Credits: 1

Course Description: Allied Health Core Skills is designed to provide knowledge, concepts and psychomotor skills necessary for gainful employment as an entry-level healthcare worker. Assisting students in selecting a career major, classroom instruction and educational objectives are combined with learning experiences, observations, and a work-based learning opportunity such as internship, shadowing, or clinical rotation. This course is designed for students not enrolled in the Medicaid Nurse Aide program.

Prerequisites: Principles of Health Science – 170111 Medical Terminology – 170131 Emergency Procedures - 170141 or Permission of Instructor.

170167 – Body Structures and Functions Grade Level: 9-12 Credits: 1

Course Description: Body Structures and Functions (formerly Basic Anatomy and Physiology) is designed to provide knowledge of the structure and function of the human body with an emphasis on normalcy. The interactions of all body systems in maintaining homeostasis will promote an understanding of the basic human needs necessary for health maintenance. Academic knowledge from life science core content as it relates to the human body will be included. Laboratory activities should be a part of the course when appropriate.

170601 – Co-op Nursing Grade Level: 12 Credits: 1

Course Description: Cooperative Education provides supervised on-the-job work experience related to the student's educational objectives. Students participating in the Cooperative Education program receive compensation for their work. Work-based learning is designed to

complement the classroom instruction. Students will be required to follow program and agency requirements for attendance and health screenings. These may include but are not limited to: drug screens, TB skin test, and immunization certificates.

Prerequisites: Principles of Health Science – 170111 Medical Terminology – 170131 Emergency Procedures - 170141 or Permission of Instructor.

170632 – Medicaid Nursing Aide (NAA 100) Grade Level: 9-12 Credits: 1

Course Description: Introduced student to basic healthcare skills such as: measuring and recording vital signs, assisting licensed personnel, observing and reporting patient conditions, collecting specimens and caring for the hygiene, comfort, and safety of patients in various settings. Prepares the student for entry level healthcare positions by incorporating certification for American Heart Association Cardiopulmonary Resuscitation (CPR). Prepares student for the State Registered Nurse Aide (SRNA) examination.

170555 – EKG Technician Grade Level: 9-12 Credits: 1

Course Description: The internship provides supervised work site experience related to the student's education objectives in the area of EKG technician. Upon completion of the internship, students are eligible to take the EKG Technician Certification examination. Work-based learning is designed to complement the classroom instruction. Students will be required to follow program and agency requirements for attendance and health screenings. These may include but are not limited to: drug screens, TB skin test, and immunization certificates.

170623 – Healthcare Communications (HST 103) Grade Level: 9-12 Credits: 1

Course Description: Introduces communication and its various forms as it exists in the healthcare field. Focuses on verbal, nonverbal, written and oral communication between members of the health team, patient, and caregivers through an interdisciplinary approach. Examines each role with discussion from the perspective of the involved parties. Emphasizes diversity, sociocultural influences and teamwork. Includes discussion of the media's role in healthcare, as well as how health promotion campaigns may be implemented and managed. Appropriate for anyone interested in a career in allied health or nursing.

170632 – Healthcare Delivery and Management (HST 102) Grade Level: 9-12 Credits: 1

Course Description: Introduces delivery and management of healthcare including professionalism, healthcare roles, healthcare delivery models, and types of healthcare coverage. Explores legal/ethical issues including HIPPA and confidentiality, electronic medical records and patients' today. Appropriate for anyone interested in a career in allied health or nursing.

170169– Medical Math/Dosage Calculation (MAI 170) Grade Level: 9-12 Credits: 1

Course Description: This course is designed to focus, utilize, and build on mathematical skills commonly used in all health occupations. Students will use applied techniques, problem-solving, and critical thinking to perform mathematical operations such as computations, ratio and proportion, weights and measurements, and conversions. This course is strongly recommended for all Health Science majors. Successful completion of Algebra I is suggested prior to enrolling in this course. This course may meet the requirements for the

fourth elective mathematics credit required for graduation with an allied health or health science major.

170567– Medical Laboratory Aide (Phlebotomy) Grade Level: 9-12 Credits: 1

Course Description: The internship provides supervised on-the-job work experience related to the students' education objectives in the area of Medical Laboratory Aide/Phlebotomist. Students participating in internship for CTE courses provide supervised work-site experience for high school students who are enrolled in a capstone course associated with their identified career pathway. Internship experiences consist of a combination of classroom instruction and field experiences. Work-based learning is designed to complement the classroom instruction. Students will be required to follow program and agency requirements for attendance and health screenings. These may include but are not limited to: drug screens, TB skin test, and immunization certificates. A Memorandum of Agreement must be completed for all clinical sites. The clinical portion of this course requires 100 hours of experience within a hospital lab, clinical lab, or physician's office. Students must complete a minimum of 30 successful unaided venipuncture collections (or minimum requirement of the clinical site) and 10 successful unaided capillary collections.

Prerequisites: Principles of Health Science – 170111 Medical Terminology – 170131 Emergency Procedures - 170141 or Permission of Instructor.

170131– Medical Terminology (AHS 115) Grade Level: 9-12 Credits: 1

Course Description: Medical Terminology designed to develop a working knowledge of language in all health science major areas. Students acquire word-building skills by learning prefixes, suffixes, roots and abbreviations. Students will learn correct pronunciation, spelling and application rules. By relating terms to body systems, students identify proper use of words in a medical environment. Knowledge of medical terminology enhances the student's ability to successfully secure employment or pursue advanced education in healthcare.

170558 – Pharmacy Technician Grade Level: 12 Credits: 1

Course Description: This course may be completed as an independent study or classroom course during the student's senior year. Material covered will include: Orientation, Federal Law, Medication Review, Aseptic Techniques, Calculations, and Pharmacy Operations. It is suggested that students complete and document at least 5-10 hours of observation and/or interview with a pharmacist or pharmacy technician. Upon completion of this internship, students are eligible to take the Pharmacy Technician Certification examination in order to obtain national certification. This internship requires supervised on-the-job work experience related to the students' education objectives in the area of Pharmacy Technician. Students participating in the internship do not receive compensation. Students will be required to follow program and agency requirements for attendance and health screenings. These may include but are not limited to: drug screens, TB skin test, and immunization certificates. A Memorandum of Agreement must be completed for all clinical sites. The clinical portion of this course requires a minimum of 50 hours of experience—40 hours in a retail pharmacy and 10 hours in a hospital pharmacy.

Automotive Technology

Automotive Maintenance and Repair Technician

This is a program that prepares individuals to apply technical knowledge and skills to repair, service, and maintain all types of automobiles. It includes instruction in brake systems, electrical systems, engine performance, engine repair, suspension and steering, automatic and manual transmissions and drivetrains, and heating and air conditioning systems.

Course Sequence

Automotive Maintenance and Light Repair Section A (AUT 110/111 Brake Systems and Lab)

Automotive Maintenance and Light Repair Section B

Special Problems 1 Automotive

Automotive Maintenance and Light Repair Section C (ADX 120/121 Automotive Electricity and Lab)

Automotive Maintenance and Light Repair Section D

Shop Management

Automotive Technology Course Descriptions

470507 Automotive Maintenance and Light Repair Section A (AUT 110/111) Grade Level: 9-12 Credits: 1

Course Description: These courses introduce the student to the principles, theories, and concepts of Automotive Technology and include instruction in the maintenance and light repair of Engines, Brake Systems, Electrical/Electronic Systems, Suspension and Steering Systems, Automatic and Manual Transmission/Transaxles, and Engine Performance Systems. In all areas, appropriate theory, safety, and support instruction will be taught and required for performing each task, including proper care and cleaning of customers' vehicles. The instruction will also include identification and use of appropriate tools and test/measurement equipment required to accomplish certain tasks. The student will also receive the necessary training to locate and use current reference and training materials from accepted industry publications and resources and demonstrate the ability to write work orders. Courses A, B, C, and D can be completed in any sequence.

470509 Automotive Maintenance and Light Repair Section B (AUT 160/161) Grade Level: 9-12 Credits: 1 See course description for AMLRS Section A

470577 Special Problems 1 Automotive Grade Level: 9-12 Credits: 1

Course Description: This course is designed to enhance a student's understanding of shop situations and problems that arise when dealing with live work. It expands on the task lists that have already been taught to the student in previous Auto courses. The instructor will teach students how to deal with real world problems that arise when repairing automobiles subjected to various types of customer road use.

470511 Automotive Maintenance and Light Repair Section C (ADX 120/121) See course description for AMLRS Section A Grade Level: 9-12 Credits: 1

470513 Automotive Maintenance and Light Repair Section D (ADX 150/151) See course description for AMLRS Section A	Grade Level: 9-12	Credits: 1
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470301 Shop Management	Grade Level: 9-12	Credits: 1
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This course introduces the basic principles of sound and efficient shop management. Inventory control, fiscal management, and customer relations are emphasized.

Construction Carpentry

Residential Carpenter Assistant

This pathway prepares individuals to apply technical knowledge and skills to layout, cut, fabricate, erect, install, and repair wooden structures and fixtures, using hand and power tools. The pathway includes instruction in technical mathematics, framing, construction materials and selection, job estimating, blueprint reading, foundations and roughing-in, finish carpentry techniques, and applicable codes and standards.

Course Sequence

Introduction to Construction Carpentry (CAR 126-127)

Construction Prints (BRX 220)

Floor and Wall Framing (CAR 190-191)

Site Layound Foundations (CAR 140-141)

Industrial Safety (ISX 100)

Ceiling and Roof Framing (CAR 196-197)

Construction Carpentry Course Descriptions

460213 Ceiling and Roof Framing (CAR 196-197)	Grade Level: 9-12	Credits: 1
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This course covers roof types and combinations of roof types used in the construction industry. The emphasis of this course is on layout. Cutting and installing ceiling joists, rafters, roof sheathing, and roof coverings for both commercial and residential construction. Content in the course should be aligned with the pathway being offered--Commercial and/or Residential

460217 Construction Prints (BRX 220)	Grade Level: 10-12	Credits: 1
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This course will provide a series of lectures, demonstrations, and practice exercises in the study of symbols, views, sections, details, and material lists found on architectural working drawings, building materials and specifications lists, and construction dimensioning systems and charts/schedules.

460212 Floor and Wall Framing (CAR 190-191)	Grade Level: 9-12	Credits: 1
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The student will practice floor framing, layout, and construction of floor frames. Cutting and installing floor and wall framing members according to plans and specifications will also be practiced. Content in the course should be aligned with the pathway being offered: Commercial and/or Residential.

499930 Industrial Safety (ISX 100)	Grade Level: 10-12	Credits: 1
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This course provides practical training in industrial safety. The students are taught to observe general safety rules and regulations, to apply worksite and shop safety rules, and to apply OSHA (Occupational Safety and Health Administration) regulations. Students are expected to obtain certification in first aid and cardiopulmonary resuscitation.

460201 Introduction to Construction Technology (CAR 126-127) Grade Level: 9-12
Credits: 1

This course is the introduction to the construction carpentry industry. The class will emphasize safe and proper methods of operating hand tools, portable power tools, and stationary power tools in the construction industry.

460214 Site Layout Foundations (CAR 140-141) Grade Level: 9-12 Credits: 1

Students will prepare materials, calculate the cost for a building site, and layout a site with a transit, locating property lines and corners. Students calculate the amount of concrete needed for footing and foundation walls and construct different types of foundations and forms.

Industrial Maintenance - Electrical Technician

Industrial Maintenance - Electrical Technician

Electrical technicians apply electrical theory and related knowledge to diagnose and modify developmental or operational electrical machinery and electrical control equipment and circuitry in industrial or commercial plants and laboratories. They assemble and test experimental motor control devices, switch panels, transformers, generator windings, solenoids, and other electrical equipment and components according to engineering data and knowledge of electrical principles.

Course Sequence

Industrial Maintenance Electrical Principles (IMT 110-111)

Fluid Power

Foundations of Energy (AET 102)

Power and Energy Equipment Basic Blueprint Reading (BRX 120)

Industrial Maintenance Electrical Motor Controls (IMT 220-221)

Industrial Maintenance - Electrical Technician Course Descriptions

499920 Basic Blueprint Reading (BRX 120) Grade Level: 10-12 Credits: 1

This course presents basic applied math, lines, multi-view drawings, symbols, various schematics and diagrams, dimensioning techniques, sectional views, auxiliary views, threads and fasteners, and sketching typical to all shop drawings. Safety will be emphasized as an integral part of the course.

470321 Fluid Power Grade Level: 9-12 Credits: 1

This course is a study of fluid power theory, component identification and application, schematic reading, and basic calculations related to pneumatic and hydraulic systems and their operations.

470348 Industrial Maintenance Electrical Motor Controls Grade Level: 10-12 Credits: 1

This course addresses the diversity of electrical motor control devices and applications used in industry today with safety and electrical lockouts included.

470322 Industrial Maintenance Electrical Principles (IMT 110-111) Grade Level: 9-12

Credits: 1

This course introduces the theory of electricity and magnetism and the relationship of voltage, current, resistance, and power in electrical circuits. The course is designed to develop an understanding of alternating and direct current fundamentals. Students will apply formulas to analyze the operation of AC and DC circuits.

210341 Foundations of Energy (AET 102) Grade Level: 9-12 Credits: 1

The course provides an overview of renewable and nonrenewable energy resources reflecting how energy impacts the environment and economy from regional, state, national and global perspectives. Extensive hands-on laboratory activities are vital components in this course. Participation in the Kentucky Technology Student Association will greatly enhance instruction.

210142 Power and Energy Equipment Technology Grade Level 10-12 Credits: 1

Power and Energy Equipment is used every day in many different ways. To become a more environmentally friendly society, students will have a basic understanding of the various types of energy equipment and how energy is obtained or generated. Everyone should know what energy sources are available that do not pollute the environment and how this energy can be converted into a useful power supply. This course provides students with foundation in content and skills associated with various energy sources, and electrical power generation, working with AC/DC electrical circuits, and transfer of various energy forms to produce DC current. Laboratory-based activities are an integral part of the course that includes safe use and application of appropriate technology, scientific testing and observation equipment. Participation in the Kentucky Technology Student Association will greatly enhance instruction.

Information Technology

Network Administration

The Network Administration pathway courses will help students learn new administration support skills or upgrade existing computer information systems skills. Students will be able to properly install networking software on an appropriately sized computer; configure the software for a simple server environment and connect it correctly to a physical network; manage a simple networking environment; effectively troubleshoot problems; adding new users and attending to security concerns; and work within the ethical/professional parameters in the field of network administration.

Course Sequence

Computer Literacy (CIT 105)

Computer Hardware and Software (CIT 111)

Internet Technologies

Introduction to Networking Concepts Security Fundamentals

Special Topics: Networking

Information Technology Course Descriptions

110101 Computer Hardware and Software Maintenance (CIT !!!) Grade Level: 9-12

Credits: 1

This course presents a practical view of computer hardware and client operating systems. It also covers computer hardware components; troubleshooting, repair, and maintenance; operating system interfaces and management tools; networking components; computer security; and operating procedures.

Students spend at least 20 hours of programming and applying learned concepts through programming. (Programming is defined, by the K-12 CS Framework, as the craft of analyzing problems and designing, writing, testing, and maintaining programs to solve them.)

110110 Computer Literacy (CIT 105) Grade Level: 9-12 Credits: 1

This course provides an introduction to the computer and the convergence of technology as used in today's global environment. Introduces topics including computer hardware and software, file management, the Internet, e-mail, the social web, green computing, security and computer ethics. Instruction presents basic use of application, programming, systems, and utility software. Basic keyboarding skills are strongly recommended. Students spend at least 20 hours of programming and applying learned concepts through programming. (Programming is defined, by the K-12 CS Framework, as the craft of analyzing problems and designing, writing, testing, and maintaining programs to solve them.)

110917 Internet Technologies Grade Level: 9-12 Credits: 1

This course provides students with a study of traditional and emerging Internet technologies. Also covered are other topics including Internet fundamentals, Internet applications, Internet delivery systems, and Internet client/server computing. Internet Technologies provides hands-on experience and some rudimentary programming in an Internet environment. Students spend at least 20 hours of programming and applying learned concepts through programming. (Programming is defined, by the K-12 CS Framework, as the craft of analyzing problems and designing, writing, testing, and maintaining programs to solve them.)

110901 Introduction to Networking Concepts Grade Level: 10-12 Credits: 1

This course introduces technical level concepts of non-vendor specific networking including technologies, media, topologies, devices, management tools, and security. Provides the basics of how to manage, maintain, troubleshoot, install, operate, and configure basic network infrastructure. Students spend at least 20 hours of programming and applying learned concepts through programming. (Programming is defined, by the K-12 CS Framework, as the craft of analyzing problems and designing, writing, testing, and maintaining programs to solve them.)

110912 Security Fundamentals Grade Level: 10-12 Credits: 1

Security Fundamentals introduces basic computer and network security concepts and methodologies. Covers principles of security; compliance and operational security; threats and vulnerabilities; network security; application, data, and host security; access control and identity management; and cryptography. Students spend at least 20 hours of programming and applying learned concepts through programming. (Programming is defined, by the K-12 CS Framework, as the craft of analyzing problems and designing, writing, testing, and maintaining programs to solve them.)

110952 Special Topics, Networking Grade Level: 10-12 Credits: 1

Special Topics courses may be utilized, with justification for the course and course objectives, upon approval by the Information Technology Consultant related to career major. Students spend at least 20 hours of programming and applying learned concepts through programming. (Programming is defined, by the K-12 CS Framework, as the craft of analyzing problems and designing, writing, testing, and maintaining programs to solve them.)

Welding

Welding - Entry Level

This course presents basic applied math, lines, multi-view drawings, symbols, various schematics and diagrams, dimensioning techniques, sectional views, auxiliary views, threads and fasteners, and sketching typical to all shop drawings. Safety will be emphasized as an integral part of the course.

Course Sequence

Basic Welding (WLD 110-111)

Basic Blueprint Reading for Welding (WLD 170-171)

Shielded Metal Arc Welding (WLD 120-121)

Gas Metal Arc Welding w/ Lab (140-141)

Special Problems (Welding)

Gas Tungsten Arc Welding w/ Lab (130-131)

Welding Course Descriptions

480505 Blueprint Reading for Welding Grade Level: 9-12 Credits: 1

This course provides a study of occupationally specific prints for welders. Advanced study of multi-view drawings, assembly drawings, datum dimensions, numerical control drawings, sheet metal prints, castings and forgings, instrumentation and control charts, diagrams, working drawings, geometric dimensioning, tolerance, and use of reference materials and books are included. Occupational specifics including welding drawings, symbols, joint types, grooves, pipe welding symbols, testing symbols, and specification interpretations are stressed.

480524 Basic Welding and Lab (WLD 110-111) Grade Level: 9-12 Credits: 1

Students are introduced to welding, cutting processes, and related equipment. Basic setup, operation, and related safety are applied.

480522 Gas Metal Arc Welding and Lab (WLD 140-141) Grade Level: 10-12 Credits: 1

This course covers identification, inspection, and maintenance of GMAW machines; identification, selection and storage of GMAW electrodes; principles of GMAW; and the effects of variables on the GMAW process. Theory and applications of related processes such as FCAW, SMAW, and metallurgy are also included. Students learn the practical application and manipulative skills of Gas Metal Arc Welding and the proper safety situations needed in this process. Both ferrous and non-ferrous metals will be covered, as well as various joint designs on plate in all positions.

480525 Gas Tungsten Arc Welding and Lab ((WLD 130-131) Grade Level: 10-12 Credits: 1

This course covers identification, inspection, and maintenance of GTAW machines; identification, selection and storage of GTAW electrodes; principles of GTAW; effects of variables on the GTAW process; and metallurgy. This course also teaches the theory and application of Plasma Arc Cutting.

480521 Shielded Metal Arc Welding and Lab (WLD 120-121) Grade Level: 9-12

Credits: 1

Students learn the identification, inspection, and maintenance of SMAW electrodes; principles of SMAW; the effects of variables on the SMAW process to weld plate and pipe; and metallurgy

480595 Special Problems Welding Grade Level: 10-12 Credits: 1

This is a course designed for the student who has demonstrated specific needs. This course does not count toward concentrator or completer status.