Wellington High School

Planning Guide

2022—2023

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Please keep in mind...

- You must enroll in the required courses PLUS any courses you did not pass the year before.
- **YOU** must make sure you have the **prerequisite** before attempting to enroll in a class.
- Some courses require a separate application. This will be due on or before March 13.
- Courses listed in the enrollment booklet may not appear on the final SCHEDULE due to low requests for enrollment or other reasons the course could not be offered.
- **Seniors are scheduled first, then juniors, then sophomores, then freshmen and late enrollees last.**
- Each elective will require you to enter an alternate that you would substitute if your first choice will not work with your schedule. It will be a direct substitution unless it, too will not work. All alternates are considered as options in building your schedule.
- **Schedule change rules and directions for completing your FOUR-YEAR PLAN apply to BOTH primary and alternate courses.**
- **Honors, AP, and college credit courses that require SUMMER WORK will not be dropped because the summer work was not completed. Students are responsible for fulfilling the requirements for the course in which they enroll.**
- Unless designated, no course successfully completed is repeatable.

Schedule Change Policy

In other words…if you COMMIT to the class and are CAPABLE, you are expected to COMPLETE the course.

A counselor can change your schedule if:

- ☑ You are not enrolled in a required class.
- ☑ You enrolled in a class that is not repeatable and you already have credit.
- ☑ You do not meet the prerequisites.
- ☑ Your schedule is incomplete.
- ☑ Your teacher recommends that you take a higher-level or lower-level class due to your academic skills.

WHS has the right to adjust a student's hourly schedule based on school needs.

Other change requests require a parent letter to the principal stating the request and the reasons that these rules should be set aside for their child.

We put many resources into setting a schedule that meets student requirements and requests. Students are then accountable for the choices they have made. If an elective change is made, the new class comes from the alternate classes that the student listed on his/her WHS Student Request Form.

Below is a chart comparing WHS DIPLOMA, QUALIFIED ADMISSION, KANSAS HONOR SCHOLAR & NCAA requirements.

Requirements at a Glance				
Area	**WHS Graduation**	**Qualified Admissions** *minimum GPA 2.0 in these courses*	**Kansas Honor Scholar**	**NCAA DI/DII** *minimum GPA 2.3 in these courses*
English	4 credits required any level English 9 any level English 10 any level English 11 any level English 12	4 credits required (regular or honors only)	4 credits required (regular or honors only)	4 credits required any level English 9-12 and/or communications or debate or public speaking, creative writing
Math	3 credits required any level of math	3 credits required Algebra I and higher & score 22 Math ACT OR 4 credits if Math ACT score is below 22	4 credits required Algebra I and higher only	3 credits required Algebra I and higher only NOTE: Intermediate Algebra will not count.
Science	3 credits required any science course	3 credits required Biology and Chemistry OR Physics PLUS one of the following: Physical Science, Honors Biology II, Chemistry II, Physics, Ecology, Anatomy & Physiology	3 credits required Biology AND Chemistry AND Physics PLUS, strongly encouraged to take an additional upper level science course	2 credits required ALL science courses meet NCAA guidelines
Social Science	3 credits required .5 Geography, World History, U.S. History, .5 Government	3 credits required	3 credits required	2 credits required
Foreign Language	**NOT required**	***Will count toward 3 credits of electives**	**2 credits in the same language**	**Will count toward 16 core credits**
Other Courses	1.0 PE, 1.0 fine arts, 1.0 Business/Computer, Financial Literacy PLUS additional courses to equal 26 total credits	3 credits required (any additional English, math, science, social studies, foreign language, CTE or fine arts course.	No additional requirements	Additional English, math, science social studies or foreign language to equal 16 total credits

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Kansas Scholars Curriculum & State Scholar Quick Facts

Completion of the Kansas Scholars Curriculum is one of the requirements Kansas residents must meet in order to receive State Scholar designation. This occurs during the senior year of high school.

What are the other requirements to become a State Scholar?

- Students must have taken the ACT between April of the sophomore year and December of the senior year.
- Students must be a Kansas resident.
- Students must have their curriculum and 7th semester GPA certified on the official roster by the high school counselor, registrar, or similar official.

KANSAS SCHOLARS CURRICULUM

English - 4 years
One unit to be taken each year. Must include substantial recurrent practice in writing extensive and structured papers, extensive reading of significant literature, and significant experience in speaking and listening.

Mathematics - 4 years
Algebra I, Algebra II, Geometry, and one unit of advanced mathematics-- suggested courses include: Analytic Geometry, Trigonometry, Advanced Algebra, Probability and Statistics, Functions or Calculus. Completion of Algebra I in 8th grade is acceptable for the Kansas Scholars Curriculum.

Science - 3 years
One year each in Biology, Chemistry, and Physics, each of which include an average of one laboratory period a week. Applied/technical courses may not substitute for a unit of natural science credit.

Social Studies - 3 years
One unit of U.S. History; minimum of one-half unit of U.S. Government and minimum of one-half unit selected from: World History, World Geography or International Relations; and one unit selected from: Psychology, Economics, U.S. Government, U.S. History, Current Social Issues, Sociology, Anthropology, and Race and Ethnic Group Relations. Half unit courses may be combined to make this a whole unit.

World Language - 2 years
Two years of one language. Latin and Sign Language are accepted.

Please note, this curriculum is NOT the same as the Qualified Admissions Curriculum.

What is the benefit of completing the Kansas Scholars Curriculum?

Students that complete this curriculum and meet the other requirements, may be designated as State Scholars, which makes one eligible to receive the Kansas State Scholarship as provided by the Kansas Legislature.
The academic profile of recent scholars include an average ACT of 30 and an average GPA of 3.91. State Scholars may receive up to $1,000 annually for up to four undergraduate years (five, if enrolled in a designated five-year program), based on financial need and the availability of State funds. Financial need is measured by federal methodology using data submitted on the FAFSA.

For more information, contact us at 785.430.4255 or at **kansasregents.org/students/student_financial_aid**.

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High School Graduates Academic Year 2020-2021 and After

Qualified Admissions

The six state universities in Kansas–Emporia State University, Fort Hays State University, Kansas State University, Pittsburg State University, The University of Kansas, and Wichita State University--use the standards below, set by the Kansas Board of Regents, to review applicants for undergraduate admission.

ACCREDITED HIGH SCHOOL

Freshmen applicants, aged 21 & younger, who graduate from an accredited high school, will be guaranteed admission to six state universities by meeting the Qualified Admissions requirements designated by each university, as follows:

ESU, PSU, FHSU, & WSU:

- ACT 21+ (SAT 1060) or Cumulative GPA 2.25+*
- Cumulative GPA 2.0+ for College Credit earned in High School

K-State:

- ACT 21+ (SAT 1060) or GPA 3.25+*
- Cumulative GPA 2.0+ for College Credit earned in High School

KU:**

- ACT 21+ (SAT 1060) and Cumulative GPA 3.25+
  or ACT 24+ (SAT 1160) and Cumulative GPA 3.0+*
- Cumulative GPA 2.5+ for College Credit earned in High School

KANSAS SCHOLARS CURRICULUM IS RECOMMENDED BUT NOT REQUIRED: To best prepare for the rigor of college level courses, following Kansas Scholars curriculum is recommended.

One unit is equivalent to one year, or two semesters:

English
4 units

Math
4 units
1 unit of each:
Algebra I, Geometry, Algebra II
1 unit: Advanced Math
See KS Scholars page for Math course list

Social Science
3 units
1 unit of U.S History
.5 unit of U.S. Gov
.5 unit of World History
1 unit: Social Science course
See KS Scholars page for Social Science course list

Science
3 units
1 unit of each:
Biology, Chemistry & Physics

Foreign Language
2 units of the same language

KANSAS SCHOLARS PROGRAM: More information about the Kansas Scholars Scholarship & Curriculum can be found here (pdf).

HOMESCHOOL & UNACCREDITED HIGH SCHOOL

Freshman applicants, aged 21 and younger, who are homeschooled or graduate from an unaccredited high school will be guaranteed admission to the six state universities by achieving an ACT score equivalent with those outlined above, per each university. If you enroll in college courses while in high school, it is also required that you achieve a 2.0 GPA or higher in those courses (2.5 if applying to KU**).

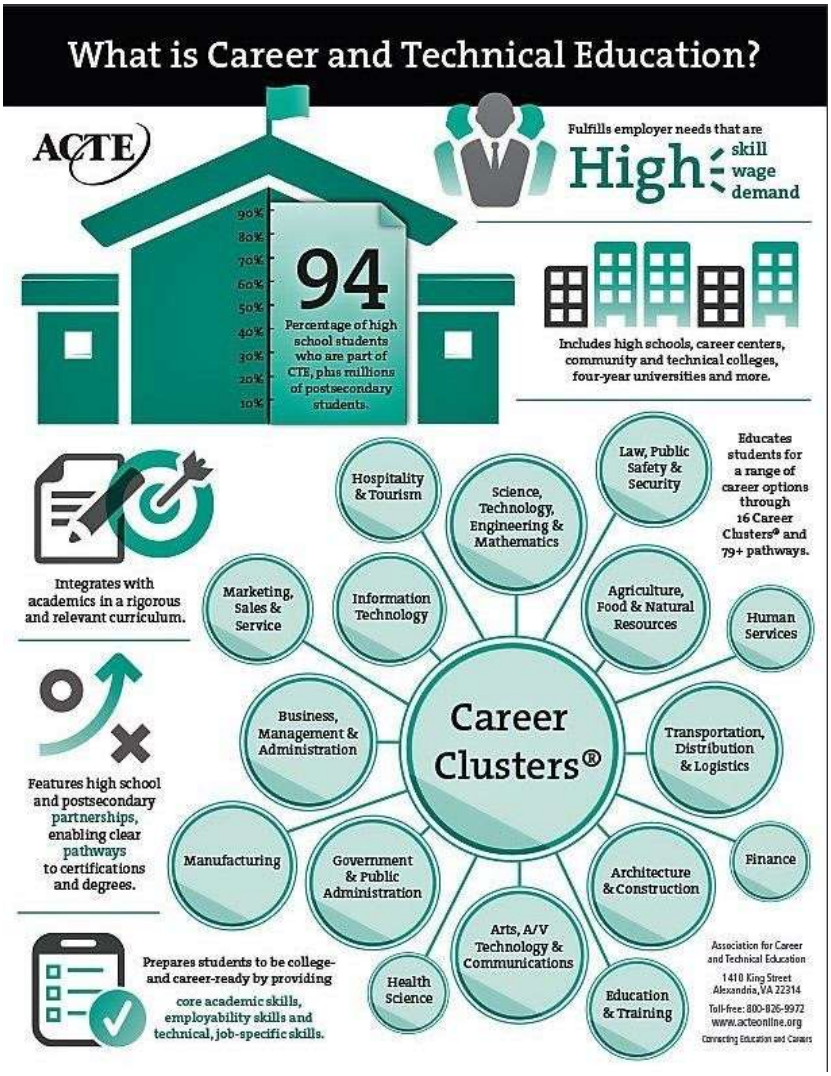
****If you do not meet the qualified admission requirements, you are still encouraged to apply. Your application will be reviewed individually. Contact the university admissions office for more information.***

*****KU's requirements are changing, pending approval of associated state regulations. For more information, please visit ku.edu/admissions.***

This document provides a summary overview of admission requirements at state universities and is not a substitute for or to be used in lieu of the actual detailed admissions requirements, which can be found at: www.kansasregents.org/qualified_admissions_rules_regulations

Date: August 2021

What is Career & Technical Education?



Taking CTE courses in high school can lead to FREE COLLEGE CREDIT and/or ADVANCED PLACEMENT in Kansas community colleges & universities. The best reason to take CTE courses is to "test drive" a career area and have **PRACTICAL/HANDS-ON experience in addition to the "book knowledge"** before heading off that career after high school.

These course descriptions and organizational charts are listed on pages 24—38.

What Do the Levels Mean?

INTRODUCTORY COURSES are beginning classes designed to "introduce you" to the general idea and theories of the pathway. Time will be spent exploring what direction you can go if you want to learn more.

TECHNICAL COURSES are the next level and designed to allow some technical application of your knowledge. These courses are more specific in content.

APPLICATION COURSES allow you to APPLY your knowledge in real life or simulations. Many of the application courses encourage INTERNSHIP and/or WORK experiences in the field.

HOW DO I GET COLLEGE CREDIT?

1. Some courses are **technical skill** DUAL-CREDIT.

2. Other courses are **general education** DUAL-CREDIT.

3. Each participating college has an "Articulated Agreement" with Kansas high schools. Most are published on the KSDE website, but some institutions have individual agreements with high schools (i.e. Cowley). To earn college credit, students would need take a series of CTE courses in one or more pathways, and complete other requirements (i.e. internship hours, pay a fee, take a test, declare a major in that area at the receiving college) to receive the credit**. Go to www.ksde.org and search** STATEWIDE ARTICULATION AGREEMENT CHART**, or to see the latest information see your CTE instructor(s).**

Work-Based Learning

WBL includes a continuum of awareness, exploration and preparation. WBL combines an individual's career goals, structured learning and authentic work experiences.

Internships

Learners perform meaningful job tasks at worksite or approved location, under the guidance of a qualified supervisor.

- Should qualify for high school credit.
- Minimum 140 hours within a calendar year.
- Performance evaluated by the work manager in addition to the educator.
- Internship completion is substantive enough to be included on students' resume.

Client Projects

Learners analyze and solve authentic problems, working in collaboration with other learners and professionals from industry, not-for-profit, civic or community-based organizations.

- Work involves authentic methods and tools used by professionals in the work environment.
- Experience includes mentoring and evaluation by working professionals.
- Output is viewed as value-add by external stakeholders and resume-worthy.

How to Apply for WBL:

1. You must be a second semester junior or a senior.
2. You must commit to 2 hours of your daily schedule.
3. You complete the google form/application when enrolling for courses in the spring. (WBL Google Form Link)
4. You will be required to attend an informational meeting prior to enrollment to understand internship requirements.
5. You must have a placement secured within first week of school or your schedule will be changed.

a. Student must assist with placement.
b. Staff will help, but ultimate responsibility is with the student.
c. Once the school year begins, the student will spend the first week making sure all paperwork is in order and placement is confirmed.

What are my options after high school?

- 4-year colleges & universities
- 2-year community colleges
- Technical colleges
- Apprenticeships
- Employment
- Certificate programs
- Gap Year experiences
- Military

You can explore; acquire skills; earn certifications; and college credit prior to graduating from high school. Planning, acting, and continuing to reevaluate yourself and your goals is key to success and preparation for what lies ahead after graduation. Here are some questions to help guide your decisions:

What is the HIGHEST level of coursework in each area I would like to achieve? Can be a different level for each area (i.e. math = higher level and English = regular level).

What do I need to do to transition from high school to the "next level"?

How can I grow in terms of leadership, communication, teamwork and work ethic skills while in high school through a combination of coursework and extracurricular activities?

Have I made sure I am meeting requirements for selective programs?

- ☐ NCAA OR NAIA (www.ncaa.org and/or www.playnaia.org)
- ☐ CAREER PATHWAY CERTIFICATIONS (see **pages 20-33**)
- ☐ KANSAS QUALIFIED ADMISSIONS (see **pages 8-9** or go to www.kansasregents.org)
- ☐ OUT-OF-STATE SCHOOLS (go to individual university websites)
- ☐ SELECTIVE ADMISSIONS (go to individual university websites)
- ☐ TECHNICAL PROGRAMS (for Kansas go to www.kansasregents.org and search technical programs)
- ☐ MILITARY (ROTC, SERVICE ACADEMIES, ETC) (contact area recruiters and/or go to www.gomilitary.com)
- ☐ APPRENTICESHIP PROGRAMS (for Kansas go to www.kansasapprenticeship.org)

What do my results from various career inventories (i.e. Xello, ACT World of Work, & ASVAB) seem to say?

- ☐ Have I considered my test scores? ACT Aspire, ACT, ACCUPLACER, ASVAB?
- ☐ Have I met with my counselor to explore all my options?
- ☐ Have I read ALL the course descriptions, and do I understand what will be expected from me in the courses I choose?
- ☐ Do I want to begin taking classes at WHS for college credit (dual-credit) and/or earn certifications (CTE)?
- ☐ Do I want to be **RELEASED** from WHS to take college credit and/or do an internship and/or work, and/or pursue certifications/college credit through Cowley?

English – Language Arts

Four credits are REQUIRED for graduation.

01211/01212 ENGLISH 9 (1 credit)
Freshman English students will be required to read and respond to Romeo and Juliet, The Odyssey, non-fiction selections, poetry, and the novels Of Mice and Men and Tuesdays with Morrie. The students will be required to complete a Reading Renaissance program. Freshman will review simple sentences and punctuation, revision, editing, and drills of mechanics, usage and grammar. Writing projects will include paraphrase, summary, informative essays, research techniques, and journal writing. Vocabulary will focus on Latin and Greek root words, prefixes and suffix.

01221/01222 ENGLISH 10 (1 credit)
Sophomore English students will be required to read and respond to short stories, essays, and two to three novels. Students will improve their writing skills through constant revision, editing, and drills of mechanics, usage, and grammar.
In grammar, they will focus on parallel structure, phrases, clauses, sentence patterns, run-on sentences, and sentence fragments. Writing may include a narrative paper, descriptive essay, journaling, and persuasive paper. Vocabulary will include Anglo-Saxon, Latin, and Greek roots, prefixes, and suffixes.

01231/01232 ENGLISH 11 (1 credit)
Junior English students will be required to read and respond to American literature of different genres, cultures, and time periods, including a novel. Juniors will perform informal and formal writing, including but not limited to a research paper. Students will improve their writing skills through constant revision, editing, and drills of mechanics, usage and grammar.

01241/01242 ENGLISH 12 (1 credit)
Students will be required to read and respond to English literature selections. Students will also be writing daily reflection journals. Additionally, students must prepare a senior portfolio, write a series of reflection essays and attend an interview.
Students will improve their writing skills through constant revision, editing, and drills of mechanics, usage, and grammar.
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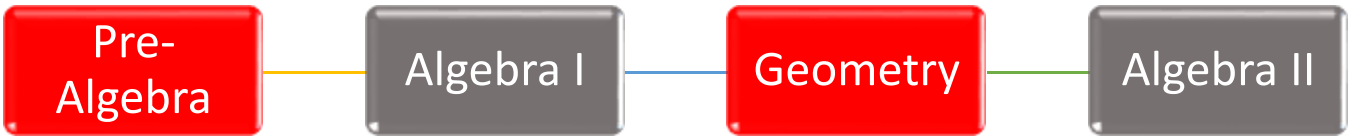
01251/01252 ADVANCED PLACEMENT LITERATURE AND COMPOSITION (1 credit)
Prerequisite: **English 10.**
Students will study college-level materials in language, literature, and composition. The content of this course and examination will follow the guidelines of the College Entrance Examination Board and Advanced Placement program. A summer assignment is required for this class that includes a mandatory spring meeting to ensure understanding and expectations of the course.
Note: Upon completion of the course and passing the exam could earn students up to six hours of college credit and count as the fourth year of high school English credit.

ENG 2211/2212 COLLEGE ENGLISH COMPOSITION I & II
(1 high school English credit, 6 hours college credit)
Prerequisite: **English 11 or AP Lit. Students must meet qualifying English and Reading assessment to enroll in this class.**
If college textbooks are not purchased 4 days within the start of class student will be dropped from the course. This course is designed to improve the reading and writing skills of the student. Each essay written in the course should clearly communicate a central idea or framework, be formatted in MLA style, contain sufficient detail, reflect the voice of the writer, and use carefully edited standard written English. Critical analysis of professional essays may be used to aid in developing the student's thinking, structure, focus, and style. This class is a dual credit course; students will have to pay Cowley College tuition and fees.

Mathematics

Three credits of MATH are REQUIRED for graduation.

Minimal College and Career Ready math skills include Algebra I and II plus Geometry.



02101/02102 PRE-ALGEBRA
Grade levels 9-10 (1 credit)
Pre-Algebra courses increase students' foundational mathematics skills and prepare them for Algebra I by covering a variety of topics, such as properties of rational numbers (i.e., number theory), ratio, proportion, estimation, exponents and radicals, the rectangular coordinate system, sets and logic, formulas, and solving first-degree equations and inequalities.

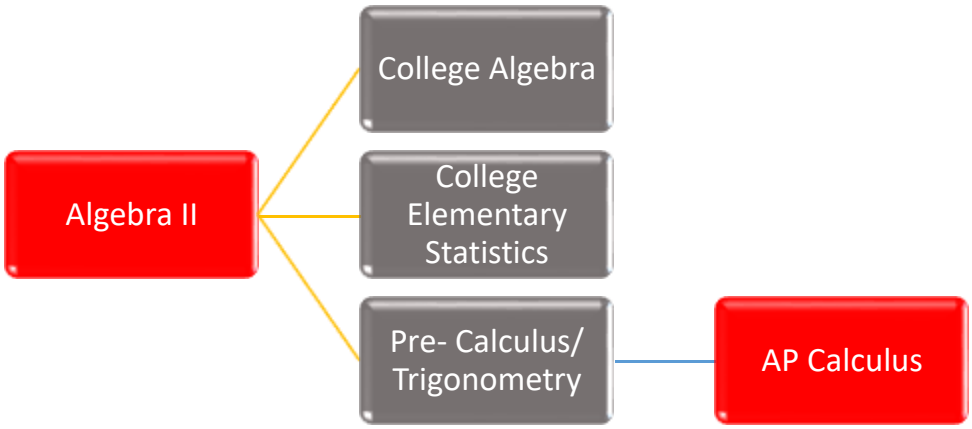
02111/02112 ALGEBRA I
Grade levels 9-10 (1 credit)
Algebra 1 is an essential course for future High School and College Mathematics and is designed to introduce key concepts and math reasoning processes involved in many aspects of life. Skills taught will include (but not limited to) number systems; interpreting and writing expressions in Algebraic form; solving one and two-variable systems of equations; rearranging formulae; factorization of functions; understanding concepts of inequality, both algebraically and graphically; applying proportionality and using simple statistics and probabilities.

02421/02422 GEOMETRY Grade levels 9-12 (1 credit) *Prerequisite*: **Algebra 1**
Geometry is a form of mathematics which is more concerned with why a statement is true, rather than just answering algebraic or numeric questions. Geometry will include (but not limited to) proofs from first principals that require logical thinking and analysis; concepts of angular measures and congruence; similarity and applications of proportionality; understanding of two- or three-dimensional figures; points, lines and planes; polygons, prisms, cones, pyramids, circles and spheres; and calculation of lateral and surface areas and volumes of various objects. This course finds application in all further High School and College Mathematics courses.

02121/02122 ALGEBRA II Grade levels 10-12 (1 credit) *Prerequisite:* **Geometry**
Algebra 2 solidifies and develops topics from previous math courses. Topics include (but are not limited to) direct and inverse variation; linear, quadratic, exponential, logarithmic and trigonometric functions; matrices and their applications; complex numbers and in-depth investigation of polynomial functions. This course exposes students to a higher level of mathematical rigor necessary for further High School and College mathematics courses.

02105/02106 GENERAL APPLIED MATHEMATICS Grade levels 11-12 (1 credit)
Prerequisites: **Algebra I AND Geometry**
General Applied Mathematics courses reinforce general mathematics skills; extend these skills to include some pre-algebra and algebra topics; and use these skills in a variety of practical, consumer, business, and occupational applications. Course topics typically include rational numbers, measurement, basic statistics, ratio and proportion, basic geometry, formulas, and simple equations. This course does not count towards the Kansas Scholar's Curriculum.

Upon completion of Algebra II additional math preparation and college credit is available.



If you are pursuing a technical college, two-year college, or university, make sure you know the math preparation or requirements for your program.

02161 TRIGONOMETRY Grade Levels 11-12 (.5 Credit) Spring Semester Only
Prerequisite: **Pre-Calculus or College Algebra**
A comprehensive study in trigonometry that begins by unifying unit circle and right triangle definitions of trigonometric functions. Using these geometric definitions, trigonometric functions are evaluated, graphed, and their properties are explored. An analytical approach is then used to simplify expressions, prove identities, and solve trigonometric equations of varying complexity. Finally, trigonometry is applied to non-right triangles, complex numbers, and vectors.

02162 PRE-CALCULUS Grade levels 11-12 (.5 Credit) Fall Semester Only *Prerequisites:***Algebra2**
An array of tools for analyzing functions and their graphs are developed and then applied to the following function families: linear, quadratic, polynomial, rational, exponential, and logarithmic. These techniques will be further developed and applied to trigonometric functions in Spring Semester's Trigonometry.

02153/02154 AP CALCULUS AB Grade levels 11-12 (1 credit) *Prerequisites:* **Pre-Calculus or College Algebra, and Trigonometry**
AP Calculus AB is roughly equivalent to a first semester college calculus course. The concept of limits, fundamental to developing differential and integral calculus, is introduced and explored graphically and analytically. The derivative is then defined and techniques are developed for its application to a wide range of problems. Finally, the integral is defined, related to the derivative in the Fundamental Theorem of Calculus, and applied to problems in various contexts. Access to a graphing calculator at home is required to complete homework. The AP Calculus AB test is a 3 hour 15-minute exam given in May.

MTH 4420 COLLEGE ALGEBRA Grade levels 11-12 (.5 high school credit; 3 hours college credit)
Prerequisites: **Students must meet qualifying math assessments to enroll in this class. ACT qualifying score of 21 in** Math and a 2.75 GPA. OR Pass Algebra II with a B or better with a 2.75 GPA. If college textbook is not purchased 4 days within the start of class student will be dropped from the course. This course is designed to equip both calculus and non-calculus bound students with a basic knowledge of how to apply the classical functions of College Algebra to real life problems. This class is a dual credit course; students will have to pay Cowley County Community College tuition and fees. Students need to obtain a TI84 Graphing Calculator for this course.

MTH 4423 COLLEGE ELEMENTARY STATISTICS Grade levels 11-12 (.5 high school credit; 3 hours college credit) *Prerequisites:* **Students must complete College Algebra with a grade of "C" or better to enroll in this class or have ACT qualifying score of 21 in Math and a 2.75 GPA**
If college textbook is not purchased 4 days within the start of class student will be dropped from the course. The purpose of this class is to introduce students to the fundamentals of analyzing statistical data from diverse areas of interest. Students who successfully complete this course should be able to interpret sets of statistical data and understand the interpretations made by others. This class is a dual credit course; students will have to pay Cowley County Community College tuition and fees. Students need to obtain a TI84 Graphing Calculator for this course.

Science

Three credits of SCIENCE are REQUIRED for graduation.

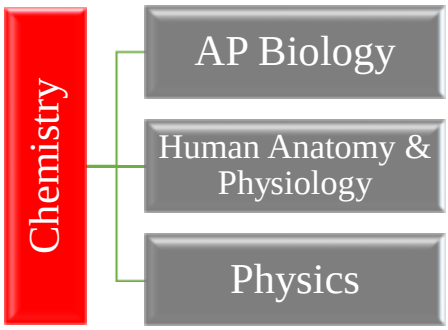
Minimal College and Career Ready science skills include Physical Science and Biology.

04811/04812 BIOLOGY Grade levels 9, 10 (1 credit)
Biology is a branch of science that deals with the study of life. Students will study a wide variety of living organisms including organisms from all kingdoms. Projects, lessons, and experiments are planned to help students gain an appreciation for the complexity of our environment. There will be work in areas such as heredity, classification, evolution, microbiology, physiology, anatomy, and ecology. Students will learn proper techniques for use of microscopes. All students will participate in dissection labs. (Frogs are the most commonly used dissection specimen.)

04891/04892 ECOLOGY Grade levels 10 (with instructor approval only), 11, 12 (1 credit)
Prerequisite: **Biology**
Students will develop an understanding and appreciation of the basic principles of the relationships between living and nonliving parts of their environment. Units of study will include all levels of ecological organization, current research on environmental and conservation issues including the impact of humans on the environment. Students will have the opportunity to review current literature focused on ecological research. Students will study animals and plants found in various biomes, with emphasis on identification of species found in South Central Kansas. Instructional methods will include lecture, class discussion, lab activities, field identification, assigned reading, individual and group projects.

04841/04842 EARTH SCIENCE
Grade levels 10, 11, 12 (1 credit)
Earth Science is the study of our natural physical environment. The class will include studies in the area of geology, astronomy, and meteorology. Specific topics covered will include: plate tectonics, natural resources, rock and mineral formation, the geologic record, including fossils and past life, volcanoes, earthquakes, river formation, glaciers, erosion, the solar system, galaxies and the universe, star formation, identification of star constellations, Earth's atmosphere, weather, cloud types, weather maps, ocean currents, and climate. The course will include labs in various subject areas. Students with interests in careers in any area of science, as well as students with casual interests in outdoor hobbies and activities will find the class useful.

04851/04852 PHYSICAL SCIENCE
Grade levels 10-12 (1 credit)
This course introduces the basic principles of chemistry and physics to the student. This is a laboratory class dealing with the scientific investigation of objects and phenomena in our physical environment. Students will study aspects of the environment such as energy, motion & force, machines, electricity, physical and chemical changes, and atomic structure. The student will develop an understanding of the interrelated nature between energy and matter and the physical laws that govern their behavior. This course is an introduction and preparation for Physics and Chemistry.



Upon completion of biology, for those pursuing a college or university, chemistry is the "gate keeper" for other chemistry-based courses and physics.

04861/04862 CHEMISTRY
Grade levels 10, 11, 12 (1 credit)
Prerequisite: **Algebra I, if you received a grade lower than a C you must get a signature from your math and science teacher.**
The fundamental concepts of inorganic chemistry will be introduced. The emphasis is upon understanding the makeup of matter and the behavior of the particles involved. In this course atomic theory, chemical bonding, chemical reactions, gas laws, and solutions are studied. The course will benefit all students and especially provide an appropriate background for those students bound for college.

04831/04832 HUMAN ANATOMY & PHYSIOLOGY I & II Grade levels 11, 12 (1 credit)
Prerequisites: **Biology and Chemistry [highly recommended]**
This course is for students who have a sincere interest in understanding the complex workings of the human body. Human Anatomy and Physiology is a fast paced and detailed study of the structures and functions of the human body. In this course, principles of anatomy and physiology are introduced and concepts in biochemistry, cytology, and histology are studied and applied to systems of the body. This course will be especially helpful to students planning post-secondary work toward careers related to science and health.

04881/04882 PHYSICS Grade levels 10 (with instructor approval only) 11, 12 (1 credit)
Prerequisite: **Algebra II, with a B or higher, Trigonometry highly recommended, if you haven't had trigonometry, you need a signature to get into Physics, by your math and science teacher.**
By the use of laboratory investigations, the basic laws of the physical behavior of matter are introduced to the student. Subjects like dynamics, mechanics, light, sound, heat, and direct current are studied. Not only does physics help students who plan to go to college, but it also helps prepare the student, regardless of his/her future plans, to make good decisions in this increasingly complex and scientific world.

04813/04814 AP BIOLOGY
Grade levels 11 and 12 (1 credit)
Prerequisite: **Biology and Chemistry with a recommended grade of B or above or instructor permission.**
AP Biology is an introductory, college-level biology course. Students expand their understanding of biology through inquiry-based investigations as they explore the following topics: evolution, cellular processes, energy and communication, genetics, information transfer, ecology, studying the interactions with the living and nonliving components of the environment.

Social Sciences

Three credits of SOCIAL STUDIES are REQUIRED for graduation.

03310 WORLD GEOGRAPHY *Required 9th Grade Course (.5 credit)
This course is the study of how Geographers look at the world, all the earth's major systems with the basic study about geographic fundamentals. Students will then apply the fundamentals to several projects throughout the semester.

01000 CIVICS 9th Grade Course (.5 credit)
Civics courses examine the general structure and functions of U.S. systems of government, the roles and responsibilities of citizens to participate in the political process, and the relationship of the individual to the law and legal system. These courses do not typically delve to the same degree of detail into constitutional principles or the role of political parties and interest groups as do comprehensive courses in U.S. Government.

03321/03322 WORLD HISTORY
***Grade level 10 (1 credit)**
This class, which is primarily for sophomores, is a general course covering man's achievement from 1400 to modern times. All significant steps in the improvement of civilizations are covered in the scope of this course.

03331/03332 AMERICAN HISTORY
***Grade level 11 (1 credit)**
The course starts with the 1890s and moves through the following areas: the American frontier, Industrialism, Spanish American War, government responsibility at home and abroad, WWI, and the Great Depression. Second semester begins with the 1940s and moves through the following areas: WWII, the Cold War, Korean War, Vietnam War, and the present. This is a required class which is offered to juniors.

03340 US GOVERNMENT* Grade level 12 only (.5 credit)
This class is an attempt to help the student to know and understand the American system of government with its three branches of government. It is designed to show the fundamental workings of our governmental system, to create a foundation for further study and help in day to day living with our rights and responsibilities. Current events involving the Bill of Rights are stressed to relate the facts with actual happenings. This required class is offered to seniors.

03347/03348 AP UNITED STATES GOVERNMENT AND POLITICS Grade level 12 only (1 credit)
This is a college level course offered to students who wish to be academically challenged and plan to take the AP exam in the spring. It is a survey course that provides an introduction into the operation of American national government. As such, we will examine: The American system of government and its origins; political opinions, interests, and behaviors.
Must have teacher approval to enroll. Note: each college determines if it grants AP credit and what score is needed to receive credit. Student should talk to the colleges of their choice.

03345/03346 COLLEGE AMERICAN NATIONAL GOVERNMENT Grade level 12 (1 high school credit; 3 hours college credit). Must be taken the entire year for college credit.
Prerequisite: **Students must meet qualifying reading assessment to enroll in this class. ACT qualifying score; Reading 18 and a 2.75 GPA.**
A general study of the development, structure and functions of the American National Government. Topics to be studied include an introduction to government, principles of constitutionalism and federalism, political parties and political behavior, the Presidency, congress, the judiciary and the federal bureaucracy, of specific emphasis is an analysis of decision-making in government, public participation and influence in government as well as a study of specific problems concerning the operation of the federal government.

Social Science Electives

08111/08112 LEADERSHIP
Grade levels 10-12 (1 Elective credit)
Students in Leadership class must complete an application and be accepted. Students will complete coursework and develop their leadership skills as they are engaged in opportunities in school and the community. Link to application: LEADERSHIP APPLICATION

03300 CURRENT EVENTS Grade levels 9-12 (.5 credit) In this class students will explore current news. They will use the daily newspapers from local, state, national, and world sources, as well as television and internet news sources. Students will respond to media sources by discussing and writing.

03370 SOCIOLOGY Grade levels 9-12 (.5 credit)
Sociology is the study of institutions of society. Five institutions—family, religion, economics, government and education -- will be examined in order to determine the impact which they have upon creating, molding, and perpetuating group behavior in United States society. Particular attention will be given to characteristics of student group behavior.

SOC 6711 COLLEGE GENERAL PSYCHOLOGY Grade levels 11 and 12 only (.5 high school credit, 3 hours college credits)
Prerequisites: **Students must meet qualifying reading assessment to enroll in this class. Qualifying ACT Reading score of 18 and a 2.75 GPA.**
If college textbook is not purchased 4 days within the start of class student will be dropped from the course. General Psychology is offered as an initial step in aiding each student to identify and become aware of variables that affect his/her own behavior and the behavior of others. The knowledge gained from General Psychology, when applied in individual lives, will allow the learner to become a more productive member of society. This course also will provide a broad foundation of fundamental principles for the learner to build upon through additional courses in the Psychology field. There will be a service-learning component within the course. This class is a dual credit course; students will have to pay Cowley County Community College tuition and fees.

SOC 6811 COLLEGE PRINCIPLES OF SOCIOLOGY Grade levels 11 and 12 only (.5 high school credit, 3 hours college credit)
Prerequisites: **Students must meet qualifying reading assessment to enroll in this class. Qualifying ACT Reading score of 18 and a 2.75 GPA.**
If college textbook is not purchased 4 days within the start of class student will be dropped from the course.
Sociology attempts to develop a sociological perspective in students to help them make more sense of their daily lives and be more useful and productive citizens. In addition, one study is concerned with social problems and issues with the focus on keys to alleviate social pressures. There will be a service-learning component within the course. This class is a dual credit course; students will have to pay Cowley County Community College tuition and fees.

03335 COLLEGE UNITED STATES HISTORY TO 1877 Grade level 11 12 (1 high school credit; 6 hours college credit) This will count as the American History credit for high school.
Prerequisite: **Students must meet qualifying reading assessment to enroll in this class. ACT qualifying score; Reading 18 and a 2.75 GPA.**
Development of the United States, 1492 to 1877, including English colonization, the American Revolution, formation of the Union, colonization of the West, development of sectionalism, the Civil War, and restoration of home rule in the South.

03336 COLLEGE UNITED STATES HISTORY SINCE 1865 Grade level 11 12 (1 high school credit; 6 hours college credit) This will count as the American History credit for high school.
Prerequisite: **Students must meet qualifying reading assessment to enroll in this class. ACT qualifying score; Reading 18 and a 2.75 GPA.**
Study of the problems and issues involved in the growth and development of the United States since 1865. The Reconstruction period is treated as an introduction. This course will also cover industrial 2017-2018 Course Descriptions March 1, 2017 45 growths, the Progressive movement, the Roaring Twenties, Great Depression World War I, World War II and the Cold War

Physical Education

Students may participate in an elective physical education program that will consist of a variety of lifelong activities and team sports and physical conditioning. The department's primary objective is to help promote the development of character and citizenship in each student. Specifically, the Physical Education Department provides instruction and activities that help students develop the knowledge, motivation and insights needed to maintain optimal physical fitness levels throughout their lives. In addition to providing comprehensive units in physical fitness for each grade in the high school, individual, dual, and team sports classes are also conducted throughout the school year.

Philosophy
The physical education/health curriculum is an integral part of the total education program by emphasizing the importance of physical and mental well-being. A diversity of activities is offered to provide students with opportunities to develop leadership and cooperative skills. Each student will understand the components necessary in maintaining lifelong fitness.

Students' grades are based on the following five categories: **Proper Attire, Participation, Effort, Attitude, and Sportsmanship.** Each class period students will be given a daily grade.

06001/06002 PHYSICAL EDUCATION/WELLNESS I (Boys) Grade level 9 (1 credit)
06051/06052 PHYSICAL EDUCATION/WELLNESS I (Girls) Grade level 9 (1 credit)
The 9th grade curriculum will have an emphasis on providing adolescents with knowledge and skills needed to engage in a physically active, healthy lifestyle throughout life. The 9th grade curriculum will follow the Kansas Adolescent Physical and Health/ Fitness Project (Physical Dimensions). Human health is to be taught as part of the framework of this course. Health Education is a year course in which students will have the opportunity to develop an understanding of how their bodies normally function. Instruction will focus on exploring the structure-order-function-relation of human systems. Students will be provided information, which will promote positive decisions affecting their physical well-being. Topics will include chemical substances, nutrition, conflict resolution/problem solving skills, media influences, and unintended pregnancies, behaviors that may result in intentional injuries (violence and suicide) and unintentional injuries (motor vehicle crashes), sexually transmitted diseases (STD's) and other current issues of concern.
Students must pass the required class, PE/Wellness I, before taking elective classes such as Strength & Conditioning and PSQ.

06021/06022 STRENGTH AND CONDITIONING (1 credit) *Prerequisite:* **Pass Physical Education/Wellness or Summer PSQ Participation**.
A class focusing on the fundamentals of weightlifting and conditioning. This fitness course is an elective class designed to provide students with increased cardiovascular endurance, muscular strength and endurance, and mobility. The emphasis is to develop a fitness program to meet those needs. Students are expected to be self-motivated and willing to work at a high level of intensity. Class activities include some weight-training (working with PSQ class), interval training, jogging, flexibility drills and a variety of sport-related exercises/or games. Mainly for beginners and those who are interested in improving their strength (competitively or otherwise). Students are fitness tested periodically throughout the semester.

06031/06032 POWER, SPEED AND QUICKNESS TRAINING (1 credit) *Prerequisite:* **Pass Physical Education/Wellness or Summer PSQ Participation**.
A class for the athletically inclined students, which will focus entirely on preparation for athletic improvement both during the season and the off-season. Power (weight lifting), speed (running), and quickness (agility) training will be utilized. Fundamental techniques will be reinforced and stressed for each lift and more advanced lifts taught. Students will follow an advanced training program and track their progress throughout the semester. Dressing out daily and full participation will be required for mastery of objectives. As in all other physical education classes, tests will be given. *(Prerequisite: Weight Training or athlete with background in weight training.)*

A6031/A6032 DOUBLE PERIOD PSQ (2 credits)
Prerequisite: **Pass Physical Education/Wellness**
A class for the athletically inclined students, which will focus entirely on preparation for athletic improvement both during the season and the off-season.
(Prerequisite: Weight Training or athlete with background in weight training.)

Business / Computer

05094 BUSINESS ESSENTIALS
Grade levels 8-12 (.5 credit)
Description in the Pathway on page 29

03360 BUSINESS ECONOMICS
Grade levels 9-12 (.5 credit)
Description in the Pathway on page 29

05090 BUSINESS COMMUNICATIONS
Grade levels 9-12 (.5 credit)
Description in the Pathway on page 29

05001/05002 ACCOUNTING A & B
Grade levels 10-12 (1 credit)
Description in the Pathway on page 30

05213/05214 PRINCIPLES OF MARKETING
Grade levels 10-12 (1 credit)
Description in the Pathway on page 30

05217 CONSUMER & PERSONAL FINANCE
Grade levels 10-12 (.5 credit)
Description in the Pathway on page 30

08091/08092 ENTREPRENEURSHIP
Grade levels 11-12 (.5 credit)
Description in the Pathway on page 30

05095 BUSINESS MANAGEMENT
Grade levels 11-12 (.5 credit)
Description in the Pathway on page 30

05011/05012 APPLIED BUSINESS DEVELOPMENT Grade levels 12 (1 credit)
Description in the Pathway on page 30

05023/05024 COMPUTER APPLICATIONS A & B
Grade levels 9-12 (1 credit)
Description in the Pathway on page 27 and 37

30102 GRAPHIC DESIGN FUNDAMENTALS
Grade level 10 (.5 credit)
Description in the Pathway on page 27

05041/05042 WEB PAGE DESIGN
Grade levels 11-12 (1 credit)
Description in the Pathway on page 30

07991/07992 MEDIA TECHNOLOGY - WORKPLACE EXPERIENCE (1 credit)
Grade levels 11-12
Prerequisite: **Student must have completed one credit of technical level coursework and have instructor approval.**
Description in the Pathway on page 28

07993/07994 PARTICULAR TOPICS IN MEDIA TECHNOLOGY Grade levels 12 (1 credit)
Prerequisite: **Student must have completed one credit of technical level coursework and have instructor approval.**
Description in the Pathway on page 37
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Instrumental Music

A minimum of ONE FINE ART (1 credit) is REQUIRED for graduation.

More FINE ART options found in the Art courses.

07911/07912 BAND Grade levels 9-12 (1 credit)
Open to any student who plays a traditional band instrument. The band will march the first nine weeks at home football games, parades, and other school and community functions. The second nine weeks includes pep band, drumline, and concert band. Third term will focus on pep band and chamber ensembles. The rest of the year will be devoted to concert band. Attendance at performances is required.

07901-07902 JAZZ BAND 'Dukes of Swing'
Grade levels 10-12 (1 credit)
Students are required to audition privately each year and are selected by the teacher. Students will be expected to understand basic music theory, read literature in various languages, play jazz repertoire, and learn elements of instrumental improvisation. This is a class not only based on skill, but character as well.
Performers will need to select from Saxophone, Trombone, Trumpet, Piano, Guitar or Bass, and Percussion. Members must display a level of leadership and representation of the school that includes honesty, integrity, compassion, and understanding to others. Any action that does not display this leadership will cause a member to be dismissed from the Dukes of Swing. Participants will be expected to purchase their own performance attire-cost to be determined at a later date.

01070 CRUSADER CORPS DRUMLINE
Grade Levels 9-12 (1/2credit)
Students are required to audition privately each year and are selected by the teacher. Students will be expected to understand basic music theory, read literature, and competent in drumming techniques. This ensemble-based class will practice to serve the marching band in the fall and be a feature performance group in the spring semester.

07900 ADVANCED MUSIC COMPOSITION AND ARRANGING (1/2 credit)
Students will build music in class or digitally. If students are composing minded, students can spend this time composing original music.
Students must personally own (at least one) a keyboard, guitar, laptop with software, bass guitar, or a trap set.
This course will mainly focus on self-guided practice and reflection.

Vocal Music

07931/07932 CONCERT CHOIR
Grade levels 10-12 (1 credit)
Concert Choir will explore various musical genres ranging from classical to pop contemporary music. Extracurricular performances and dress rehearsals are required. Concert Choir will perform at concerts and other events throughout the school year. *Prerequisite:* Students must be in 10th, 11th or 12th grade.

07941/07942 CRUSADER SINGERS
Grade levels 10-12 (1 credit)
Prerequisite: **Must be in Grades 10, 11 or 12 and enrolled in Concert Choir**
Crusader Singers are required to audition privately each year and are selected by the teacher. Students will be expected to understand basic music theory, read literature in various languages, sing various types of repertoire, and learn elements of dance in show choir pieces. This is a class not only based on skill, but character as well. Members must display a level of leadership and representation of the school that includes honesty, integrity, compassion, and understanding to others. Any action that does not display this leadership will cause a member to be dismissed from Crusader Singers. Participants will be expected to purchase their own performance attire-cost to be determined at a later date. Crusader Singers will sing at various events and performances throughout the school year. *Prerequisite:* Students must be in 10th, 11th, or 12th grade.

07998/07999 FRESHMAN MIXED CHORUS
Grade level 9
Freshman chorus is an entry level choir that will rehearse separately from soprano/alto and tenor/bass. This class helps explore the students' voice levels and increases their knowledge of music theory, literature of different styles, and intro to high school choir. Performances and dress rehearsals are required. Freshman chorus will perform together at concerts and other events throughout the school year.

07971/07972 CRUSADER SHOWCHOIR
Grade level 10-12
Students will learn a variety of songs throughout the year with the element of dance. This group will be able to go out and perform at many events in the community and other places as well throughout the school year. This is an auditioned choir that does require commitment for a whole year. All rehearsals are mandatory as well as performances. Attire will be purchased on the student's own dime and will be selected at a later date.

Art

07620 INTRO TO CERAMICS (.5 credit)
Students enrolled in Ceramics I will experiment with hand-built ceramics. Students will learn the pottery techniques of pinch, coil, slab, and wheel throwing as well as glazing and finishing.

07630 ADVANCED CERAMICS (.5 credit)
Prerequisite: **Intro to Ceramics with a C or better**
Advanced Ceramics is a continuation of Intro to Ceramics. More complex assignments with an emphasis on the quality of workmanship will be expected.

07661/07662 PAINTING (1 credit)
Students in Painting will work with and experience different techniques and materials with an emphasis in Acrylic and Watercolor mediums. Upon completion of the required assignments, students will have the opportunity to focus on a particular medium and expand their working knowledge of painting through experience. Various styles, techniques, artists, and famous works will be studied.

07671/07672 ADVANCED PAINTING (1 credit)
Prerequisite: **Painting with a C or better.**
Advanced Painting is a continuation of the Painting classes. Students will continue to focus on specific techniques and materials. In addition to completing required assignments, the students will be challenged to develop and execute their own projects that push the limits of their creativity and self-expression, using all learned techniques and available materials. Students will become more familiar with the work of prominent artists and will learn how they had an impact on art history.

07600 INTRO TO DRAWING & DESIGN
Grade levels 9-12 (.5 fine arts credit)
Intro to Drawing emphasizes the development of fundamental drawing skills. Focus will be on the application of art theory, processes and techniques that increase the power of observation. Instruction includes the elements and principles of design as applied in composition through hard copy and/or electronic software.

07651/07652 DRAWING II (1 credit)
Prerequisite: **Intro to Drawing with a C or better.**
Drawing II is a continuation of the Intro to Drawing class. Students will continue to focus on specific techniques and materials. In addition to completing required assignments, the students will be challenged to develop and execute their own projects that push the limits of their creativity and self-expression, using all learned techniques and available materials. Students will become more familiar with the work of prominent artists and will learn how they had an impact on art history.

07681/07682 INDEPENDENT ART STUDY (1 credit)
Prerequisite: **Adv. Drawing, Adv. Painting, Adv. Jewelry, or Adv. Ceramics with a C or better. Must have instructor's written approval.**
Students must have written approval from the instructor. The course requirements will be developed on an individual basis with an emphasis on personal growth and understanding. In addition to completing required assignments, the student will be challenged to develop and execute their own projects that push the limits of their creativity and self-expression.

07691 INTRO TO JEWELRY
Grade levels 9-12 (.5 credit)
A comprehensive study of jewelry fabrication using copper, brass and silver.

07692 ADVANCED JEWELRY
Grade levels 9-12 (.5 credit)
Prerequisite: **Pass Intro to Jewelry with a C or better.**
A continuing study of the jewelry making processes.

07730 SCREENPRINTING
Grade levels 9- 12 (.5 credit)
Prerequisite: **Graphic Design Fundamentals with a C or better.**
A study of Screenprinting includes printing on paper, cloth and other substrates. Computer programs will be implemented in designing projects.

Foreign Language

07211/07212 SPANISH I Grade levels 9-12 (1 credit) *Prerequisite:* Successful completion of prior English classes or approval of the Spanish Instructor)
The 2000 US census reports that over 28 million people aged 5 or older speak Spanish at home. Only half of those report that they speak English "Very Well." Spanish is the number two spoken language in the United States and soon to be the number two spoken language in the World. The coursework in Spanish I focuses on providing a strong foundation for grammar, cultural perspectives, pronunciation, and vocabulary relating to everyday issues and interactions. By utilizing the 5 C's, communications, cultures, connections, comparisons, and communities, students will exit Spanish I with the ability to communicate with a native speaker in a basic setting and will have a strong groundwork for furthering the student's pursuit of Spanish.

07221/07222 SPANISH II Grade levels 10-12 (1 credit)
Prerequisite: **Successful completion of Spanish I not lower than a C, or the approval of the instructor.**
Spanish II picks up where Spanish I leaves off by exploring the concepts of advanced grammar and vocabulary, culture, literature and arts, and the awareness of local Spanish speaking communities in the United States. Upon exiting Spanish II, the student be able to converse with a native speaker on a more sophisticated level.

07231/07232 SPANISH III Grade levels 11-12 (1 credit, can be taken as a dual credit)
Prerequisite: **Successful completion of Spanish II not lower than a B AND approval of the instructor.**
This level is for reviewing and broadening the study of grammar and language structure. While the emphasis is on Spanish language acquisition for oral proficiency, students will also delve into the literature of the Spanish speaking world. Upon completion students will find themselves at a great advantage when entering the workplace or University environment.

07241/07242 SPANISH IV Grade level 12
Prerequisite: **Successful completion of Spanish III not lower than a B AND approval of the instructor.**
This level of Spanish focuses on improving fluency, with a review of several key grammatical structures, and introduction to new vocabulary and grammar concepts to further increase students' language proficiency. In addition to the emphasis on spoken Spanish, students will review literature and movies to improve reading and listening comprehension as well as cultural awareness

Other Electives

03320 ALL YOU NEED TO KNOW... AND MORE (.5 Elective credit) Spring Semester Only
All You Need to Know...and More will be an extension and critical analysis of content taught in the regular curriculum. Topics to be investigated may include: language arts, science, social science, psychology, philosophy, math history, music and art history and appreciation, current events relevance, test prep, note-taking, critical thinking and research skills necessary for the college-bound student. Priority will be given to college-bound juniors and seniors.

03330 APPLIED DIGITAL SKILLS (.5 elective credit) Fall Semester Only
Applied Digital Skills teaches students to operate and use computer and information technology, emphasizing their role as tools to communicate more effectively, conduct research more efficiently, and increase productivity. Course content includes the legal and ethical issues involved with computer technology and use

07160 INTERIOR DESIGN Grade levels 10, 11, 12 (.5 credit)- only offered in odd graduation years.
This course introduces the student to basic concepts of interior design and their applications to home decorating. Students will explore and apply these concepts in a variety of activities with an emphasis on "hand-on" experiences. Most projects involve more than one day, and require the ability to find stopping and starting points and using time wisely.

Communications

01060 DEBATE (.5 Fine Arts credit) Fall Semester Only *Prerequisite*: Must be academically eligible to participate in KSHSAA activities.
This course will provide students with an introduction to competitive debate using the current year's debate resolution. The class will emphasize debate theory, research techniques, speaking skills, case construction, high level comprehensive
Reading, analysis of information and argument refutation. Debaters will be provided with extensive opportunities to refine their debate skills through practice debates and speeches, as well as the competitive experience of interscholastic
Tournaments. Tournament participation on Saturdays is required to pass this course. This course may be repeated for elective credit.

05058/05059 DIGITAL MEDIA PRODUCTION (YEARBOOK/NEWSCAST)
Grade level 10-12 (1 Elective credit)
Prerequisite: Students must have earned at least a B in their previous English and/or Yearbook classes, maintain a 2.75 GPA, and submit a writing sample.
Students enrolled in Digital Media Production have the opportunity to contribute to both The Crusader, the school yearbook, and KWHS News, the school news broadcast. The course offers instruction in audio/visual production and editing, principles of design, camera operation photography/videography, and writing. Students must be willing to take photographs/video, conduct interviews, attend school and sporting events, work as a team player, sell advertising, and meet deadlines

01030 COMPETITIVE SPEECH AND DRAMA (.5 Fine Arts credit) Instructor's Permission Only – Spring Semester Only
Competitive Speech and Drama, also known as Forensics, is a fun, competitive, performance-based class offered during the Spring semester each year. This class is designed to prepare motivated students for speech competition in two or more of the following areas:

Informative Speaking	Serious Solo Acting
Persuasive Speaking	Duet Acting
Impromptu Speaking	Improvised Duet Acting
Extemporaneous Speaking	Prose Interpretation
Humorous Solo Acting	Poetry Interpretation

Students will be expected to work outside of class and travel with the squad to weekend and weekday tournaments. Students may earn individual medals, trophies for their school, lifetime friendships, and the opportunity to learn valuable life skills in communication, organization, teamwork, and self-discipline. Participation is required to pass this class. This is a Fine Arts credit. This course may be repeated for elective credit.

COM 2711 COLLEGE PUBLIC SPEAKING
(.5 high school fine arts credit, 3 hours college credit)
Prerequisite: Students must meet qualifying reading assessment to enroll in this class. ACT qualifying score; Reading 18 and a 2.75 GPA.

If college textbook is not purchased 4 days within the start of class student will be dropped from the course. Effective communication is essential to all types of human relationships. This course will emphasize speech organization, development of ideas, delivery, peer and audience analysis. This class is a dual credit course; students will have to pay Cowley County Community College tuition and fees.

Benefits of Career Clusters

Why use career clusters to explore careers and plan your future? Thinking ahead and preparing for careers is helpful if you are headed to the workplace or college. Some careers that are common today may not be needed tomorrow. And all careers require flexibility, knowledge, and skills.

WHS Career and Technical Education

On the following pages is a listing of the pathways offered at WHS. If a student achieves "concentrator" status in a pathway by your senior year, and you have earned at least a letter grade of a "C" or better in your CTE classes, you will be eligible to receive an honors chord at graduation.

To be a "concentrator", you need to:

- Complete 3 credits in an approved pathway
- Earn 2 of the 3 credits in technical or application-level courses
- Maintain a "C" or better in CTE courses

AGRICULTURE, FOOD & NATURAL RESOURCES

Animal Science Pathway

Level	Course Name	Course Code	Credit	Grade
Introductory	Intro to Agriculture	18001	1	8
Technical	Animal Science	18101	1	9
Technical	Small Animal Care	18102	1	10
Technical	Animal Health/Vet Tech	18105	1	10
Application	Agricultural Business	18201	1	11
Application	Agricultural Leadership & Communications	18203	1	11
Application	Research in Agriculture	18206	1	11
Application	Internship	18048	1	12
Application	Advanced Internship	18049	1	12

Comprehensive Agricultural Science Pathway

Level	Course Name	Course Code	Credit	Grade
Introductory	Intro to Agriculture	18001	1	8
Technical	Animal Science	18101	1	9
Technical	Horticulture	18102	1	9
Application	Agricultural Business	18201	1	11
Application	Agricultural Leadership & Communications	18203	1	11
Application	Research in Agriculture	18206	1	11
Application	Internship	18048	1	12
Application	Advanced Internship	18049	1	12

Plant Systems Pathway

Level	Course Name	Course Code	Credit	Grade
Introductory	Intro to Agriculture	18001	1	8
Technical	Horticulture	18102	1	9
Application	Applications in Horticulture	18071	1	10
Application	Floriculture and Greenhouse Management	18057	1	10
Application	Agricultural Business	18201	1	11
Application	Agricultural Leadership & Communications	18203	1	11
Application	Research in Agriculture	18206	1	11
Application	Internship	18048	1	12
Application	Advanced Internship	18049	1	12

Power, Structural and Technical Systems Pathway

Level	Course Name	Course Code	Credit	Grade
Introductory	Intro to Agriculture	18001	1	8
Introductory	Exploratory Agriculture	68001	1	8
Technical	Agricultural Welding I	18404	1	9
Application	Agricultural Welding II	18407	1	10
Application	Agricultural Business	18201	1	11
Application	Agricultural Fabrication	18409	1	12
Application	Agricultural Leadership & Communications	18203	1	11
Application	Internship	18048	1	12
Application	Advanced Internship	18049	1	12
Application	Research in Agriculture	18206	1	12

TECHNICAL LEVEL COURSES

07321/07322 ANIMAL SCIENCE
Grade levels 9-12 (1 credit)
***Course does count as a science credit for graduation**
This course will cover various aspects of animal agriculture. Topics will include, but are not limited to, livestock nutrition, reproduction, health, marketing, heritability and evaluation of beef and dairy cattle, poultry, sheep, and swine. Application of knowledge will take place within the classroom and on related career development event trips.

07323/07324 SMALL ANIMAL CARE
Grade levels 10-12 (1 credit) *Prerequisite:* **Animal Science**
This course will give students an in-depth look at small animal and canine care. Students will complete a course in Canine care and Training and be eligible for a certificate from the Continental Kennel Club. Students will learn about safety, animal rights and welfare, nutrition and digestion, and care of numerous small animals. Students will have hands on work with dogs in the class room and care for animals that are in need of rehabilitation.

07391/07392 ANIMAL HEALTH/VET TECH
Grade levels 10-12 (1credit) *Prerequisite:* **Animal Science**
This course will cover a wide variety of topics such as nutrition, reproduction, health, body systems, care and recovery, first aid techniques and technical skills used in a veterinary hospital on all animal species. Students will be able to qualify for a certificate as a Veterinary Assistant if all course work is completed satisfactorily. Application of knowledge will take place within the classroom, during job shadowing, on related course fieldtrips, and on career development event trips.

07311-07312 HORTICULTURE
Grade levels 9-12 (1 credit)
***Course does count as a science credit for graduation**
This course is designed to provide students with the basics needed to understand the horticulture industry. They will learn about the industry, personal safety, plant taxonomy, soils and fertility and propagation. Students will be working in the 30X50 foot greenhouse and operating a plant sale at the end of the school year.

07331/07332 AGRICULTURAL WELDING I
Grade levels 9-12 (1 credit)
This course is designed to provide students with a basic understanding of working in a safe shop environment in agricultural and industrial welding and cutting processes. Students will receive extensive instruction in oxy/acetylene cutting and welding, SMAW, and the use of a plasma torch. Students will be involved in planning and implementation of a class construction project. Application of knowledge will take place within the classroom, welding shop, and on related career development event trips.

APPLICATION-LEVEL COURSES

07313/07314 APPLICATIONS IN HORTICULTURE Grade levels 10-12 (1 credit)
Prerequisite: **Horticulture and have instructor approval.**
This course will include an in depth look at plant taxonomy, plant processes and growth factors, plant propagation, pest control, soil science, turf establishment, gardening, equipment service and maintenance, greenhouse operations, nursery production,

and tissue culture. Other related tasks will take place on the school resource farm as well as on related field trips and on career development event trips.

07371/07372 FLORICULTURE & GREENHOUSE MANAGEMENT Grade levels 10-12 (1 credit)
Prerequisite: **Horticulture and have instructor approval.**
This course will allow the students to study the areas of flower selection, fertility, weed control, floral design, greenhouse installation and maintenance. Emphasis will be on identifying plants and pests. Classroom study will be supplemented with hands on planting, fertilizing, pruning and other related tasks on the school resource farm and grounds as well as related career development event trips.

07341/07342 ADVANCED AGRICULTURAL WELDING II Grade levels 10-12 (1 credit)
Prerequisite: **Agriculture Welding I and have instructor approval.**
This course is designed to increase the knowledge of welding processes for students who have taken and passed the Agricultural and Industrial Welding course. Students will be exposed to horizontal, vertical, and overhead SMAW welding, GMAW welding, TIG welding techniques on mild steels, structural pipe and aluminum. Students can have the opportunity to construct larger metal projects during the spring semester. Application of knowledge will take place within the classroom, welding shop, and on related career development event trips.

07303/07304 AGRICULTURAL FABRICATION Grade 12 (1 credit)
Prerequisite: **Student must have completed Ag Welding I & II and have instructor approval; major project construction will be required.**
This course is designed to take the skills the student has already developed in prior Welding courses and move into more advanced applications. Students will be required to plan, implement, and construct a project.

07361/07362 AG LEADERSHIP & COMMUNICATIONS Grade 11-12 (1 credit)
Prerequisite: **Student must have completed one credit of technical level coursework and have instructor approval.**
This course will cover various aspects of communications as it relates to leadership and the workplace. Topics covered will include but are not limited to: leading teams and groups, decision making, problem solving, time management, conflict resolution, and ethics. In addition, students are required to participate in FFA, and complete an SAE and SAE Proficiency Application.

07398/07399 RESEARCH IN AGRICULTURE Grade 11-12 (1 credit)
Prerequisite: Student must have completed one credit of technical level coursework and have instructor approval.
Allows students to prepare, conduct and evaluate science-based projects as they relate to science in agriculture in the classroom, shop or greenhouse.

18201 AGRICULTURAL BUSINESS Grade 11 (1 credit)
The Agricultural Business course provides a foundation for students interested in pursuing a degree in agribusiness through pot-secondary study or to enter the Agribusiness industry upon graduation from high school. The course will help students build a strong knowledge base of the agribusiness industry as they study agribusiness types, business management, financial analysis, communications, agricultural law, leadership and teamwork, ethics, and agricultural economics. Mastery of these standards through project-based learning and leadership development activities in the FFA and supervised agricultural experience program will help prepare students for post-secondary study or entry into agribusiness.

07353/07354 INTERNSHIP IN AGRICULTURE Grade 12 (1 credit)
Prerequisite: **Student must have completed one credit of technical level coursework and have instructor approval.**
Provides students an opportunity to gain knowledge and skills used in various Agriculture Careers. Students will provide a detailed log of experiences and hours while participating.

07355/07356 ADVANCED INTERNSHIP Grade 12 (1 credit)
Prerequisite: **Student must have completed one credit of technical level coursework and have instructor approval.**
This course allows additional time for students to be exposed to careers in an internship area as related to the AFNR cluster in a specific career.

ARCHITECTURE & CONSTRUCTION CAREER CLUSTER

Construction and Design Pathway

Level	Course Name	Course Code	Credit	Grade
Introductory	Intro to Industrial Technology	38001	0.5	9
Introductory	Drafting	21102	0.5	9
Technical	Carpentry	17002	1	10
Technical	Woodworking Principles	17007	1	10
Application	Furniture and Cabinetry Fabrication	38007	1	11
Application	Carpentry II	38002	1	11
Application	Electrical & Security Systems	17113	0.5	11
Application	Sheet Metal	13205	0.5	11
Application	Workplace Experience in A & C	38100	0.5	12

INTRODUCTORY LEVEL COURSES

07400 INTRODUCTION TO INDUSTRIAL TECHNOLOGY Grade levels 9-12 (.5 credit)
Introductory level class for Construction Pathway
An introductory level course designed to instruct students in the basic skills necessary to all occupations in the Construction, Manufacturing, & Transportation areas

07410 DRAFTING Grade levels 9-12 (.5 credit)
An introductory course designed to expose students to both architectural and mechanical (technical) drafting skills.

TECHNICAL LEVEL COURSES

07481/07482 CARPENTRY I & II (Previously Residential Carpentry) Grade levels 10-12 (1 credit)
Must obtain instructor permission.
A comprehensive course designed to instruct students in the basic knowledge and skills required for construction of residential structures.

07431/07432 WOODWORKING PRINCIPLES Grade levels 10-12 (1 credit)
A comprehensive course designed to instruct students in the basic knowledge and skills required for cabinetmaking and furniture design.

APPLICATION-LEVEL COURSES

07441/07442 FURNITURE & CABINETRY FABRICATION Grade levels 11-12 (1 credit)
Prerequisite: **Student must have completed one credit of technical coursework and have instructor approval.**
An advanced level application course designed to provide students with experience in construction cases, cabinets, counters, furniture, and interior woodwork.

17113 ELECTRICAL & SECURITY SYSTEMS Grade levels 11-12 (.5 credit) *Prerequisite:* **Student must have completed one credit of technical coursework and have instructor approval.** A course designed to instruct students in the basic skills required for installation of electrical and security systems.

13205 SHEET METAL TECHNOLOGY Grade levels 11-12 (.5 Credit) *Prerequisite:* **Student must have completed one credit of technical coursework and have instructor approval.**
Students will learn may different ways to make and use sheet metal.

38100 WORKPLACE EXPERIENCE IN A&C Grade 12 (.5 credit)
An advanced application-level course that offers students an opportunity to apply knowledge and skills in an actual workplace setting, outside of the school setting, that explores all aspects of the selected industry, builds relationships with industry professionals, and creates a seamless transition from secondary to postsecondary pursuits and job satisfaction.

ARTS, AV & COMMUNICATIONS CAREER CLUSTER

Digital Media Pathway

Level	Course Name	Course Code	Credit	Grade
Introductory	Business Essentials	12050	0.5	8
Introductory	Computer Applications	10004	1	9
Technical	21st Century Journalism	30100	0.5	9
Technical	Photo Imaging	30105	0.5	9
Technical	Graphic Design Fundamentals	30102	0.5	10
Technical	Audio/Video Production Fund	30103	0.5	10
Technical	Sports and Entertainment Marketing	12163	0.5	11
Technical	Graphic Design	05162	1	11
Application	Digital Media Design & Production	30151	1	12

Graphic Design Pathway

Level	Course Name	Course Code	Credit	Grade
Introductory	Introduction to Drawing	30006	0.5	9
Introductory	Computer Applications	10004	1	9
Technical	Photo Imaging	30105	0.5	9
Technical	Graphic Design Fundamentals	30102	0.5	10
Technical	Computer Graphics	10202	1	10
Technical	Graphic Design	05162	1	11
Application	Media Technology - Workplace Experience	10248	1	12

INTRODUCTORY LEVEL COURSE

05023/05024 COMPUTER APPLICATIONS A & B
Grade levels 9-12 (1 credit)
Students acquire knowledge of and experience in the proper and efficient use of software packages. This course explores a wide range of applications, including (but not limited to) word-processing, spreadsheet, graphics, the use of electronic mail and desktop publishing.

TECHNICAL LEVEL COURSES

30100 21ST CENTURY JOURNALISM
Grade level 9 (.5 credit)
21st Century Journalism promotes the development of the skill set needed today and in the future. Topics include an exploration of the role media and the communications industry has in society, the development of the technical skills related to journalistic writing and interviewing, as well as understand the ethical and legal issues related to the field

07800 PHOTO IMAGING
Grade levels 9-12 (.5 fine arts credit)
Photo Imaging teaches the technical skills needed to produce quality images for use in a variety of applications. Topics include use of equipment, software and techniques to take, edit and manipulate digital images.

30102 GRAPHIC DESIGN FUNDAMENTALS
Grade level 10 (.5 credit)
Graphic Design Fundamentals provides a basic understanding of the graphic design process. Topics include analyzing the design elements and principles, exploring industry tools, software and equipment and learning composition techniques to develop a quality product.

30103 AUDIO/VIDEO PRODUCTION FUNDAMENTALS Grade levels 10 (.5 credit)
Audio Video Production Fundamentals provides a basic understanding of producing video for a variety of uses. Topics include analyzing the pre-production, production and post-production process, as well as explore the equipment and techniques used to develop a quality video production.

12163 SPORTS/ENTERTAINMENT MARKETING Grade levels 11 (.5 credit)
Sports and Entertainment Marketing courses introduce students to and help them refine marketing and management functions and tasks that can be applied in amateur or professional sports or sporting events, entertainment or entertainment events, and the sales or rental of supplies and equipment.

07701/07702 GRAPHIC DESIGN
Grade levels 11-12 (1 credit fine arts credit)
Graphic Design courses emphasize design elements and principles in the purposeful arrangement of images and text to communicate a message. They focus on creating art products such as advertisements, product designs, and identity symbols. Graphic Design courses may investigate the computer's influence on and role in creating contemporary designs and provide a cultural and historical study of master design works of different periods and styles.

APPLICATION-LEVEL COURSES

05058/05059 DIGITAL MEDIA PRODUCTION (YEARBOOK/NEWSCAST) Grade level 12
(1 Elective credit) *Prerequisite:* **Students must have earned at least a B in their previous English and/or Yearbook classes, maintain a 2.75 GPA, and submit a writing sample.**
Students enrolled in Digital Media Production have the opportunity to contribute to both The Crusader, the school yearbook, and KWHS News, the school news broadcast. The course offers instruction in audio/visual production and editing, principles of design, camera operation in photography/videography, and writing. Students must be willing to take photographs/video, conduct interviews, attend school and sporting events, work as a team player, sell advertising, and meet deadlines.

07991/07992 MEDIA TECHNOLOGY - WORKPLACE EXPERIENCE
Grade levels 11-12 (1 credit) *Prerequisite:* **Student must have completed one credit of technical level coursework and have instructor approval.**
MT-WE provides a career-building, college preparing experience through project-based learning. The course provides students with work experience in fields related to media technology. Students will use skills acquired from intro and technical level classes in authentic work for clients. Also, students will work in the school-based business of printing, vinyl cutting, and web-design. Certification in Adobe Photoshop, Illustrator, or Dreamweaver will be available in class.

BUSINESS MANAGEMENT & ADMINISTRATION CAREER CLUSTER

Business Entrepreneurship and Management Pathway

Level	Course Name	Course Code	Credit	Grade
Introductory	Business Essentials	12050	0.5	8
Technical	Business Economics	12105	0.5	9
Technical*	Agricultural Welding I	18404	1	9
Technical*	Culinary Essentials	16052	0.5	9
Technical*	Business Communications	12009	0.5	9
Technical*	Accounting	12104	1	10
Technical*	Principles of Marketing	12164	1	10
Technical*	Woodworking Principles	17007	1	10
Technical*	Carpentry	17002	1	10
Technical*	Consumer & Personal Finance	22210	0.5	10
Technical	Entrepreneurship	12053	0.5	11
Technical	Business Management	12052	0.5	11
Technical*	Web Page Design	10201	1	11
Application	Applied Business Development	32200	1	12

INTRODUCTORY LEVEL COURSE

05094 BUSINESS ESSENTIALS
Grade levels 8-12 (.5 credit)
This is an introductory course designed to give students an overview of the business, marketing and finance career cluster occupations. Students will develop an understanding of how academic skills in mathematics, economics, and written and oral communications are integral components of success in these occupations. Business Essentials uses current events to illustrate business concepts and helps students build a business vocabulary sufficient for them to understand CNBC, the Wall Street Journal, or the nightly business news. It increases students' business literacy and understanding of current global business events. Students will examine current events to determine their impact on business and industry and legal and ethical behavior and identify employability and personal skills needed to obtain a career and be successful in the workplace.

TECHNICAL LEVEL COURSES

03360 BUSINESS ECONOMICS
Grade levels 9-12 (.5 credit)
Business Economics course integrates economic principles (such as free market economy, consumerism, and the role of American government within the economic system) with entrepreneurship/business concepts (such as marketing principles, business law, and risk).

07331/07332 AGRICULTURAL WELDING I
Grade levels 10-12 (1 credit)
Description on page 24

07180 CULINARY ESSENTIALS
Grade levels 9-12 (.5 credit)
Prerequisite: **C or better in Nutrition & Wellness**
Description on page 34.

05090 BUSINESS COMMUNICATIONS
Grade levels 9-12 (.5 credit)
This course will help to develop an understanding and appreciation for effective communication in business situations and environments. Emphasis is placed on all phases of communication: speaking, listening, thinking, responding, reading, writing, communication non-verbally, and utilizing technology for communication. Business communication functions, processes, and applications in the context of business may be practiced through problem-based projects and real-world applications.

05001/05002 ACCOUNTING A & B
Grade levels 10-12 (1 credit)
Accounting courses introduce and expand upon the fundamental accounting principles and procedures used in businesses. Course content typically includes the full accounting cycle, payroll, taxes, debts, depreciation, ledger and journal techniques, and periodic adjustments. Students learn how to apply standard auditing principles and to prepare budgets and financial reports. Calculators, electronic spreadsheets, or other automated tools are

usually used. Advanced topics may include elementary principles of partnership and corporate accounting and the managerial uses of control systems and the accounting process.

05213/05214 PRINCIPLES OF MARKETING
Grade levels 10-12 (1 credit)
Principles of Marketing course offers students insight into the processes affecting the flow of goods and services from the producer to the consumer. Course content ranges considerably as general marketing principles such as purchasing, distribution, and sales are covered; however, a major emphasis is often placed on kinds of markets; market identification; product planning, packaging, and pricing; and business management. (Aligned directly with MBA Research's Marketing Principles course profile.)

07431/07432 WOODWORKING PRINCIPLES
Grade levels 10-12 (1 credit)
Description on page 26

07481/07482 CARPENTRY (Previously Residential Carpentry) Grade levels 10-12 (1 credit)
Must obtain instructor permission.
Description on page 26

05217 CONSUMER & PERSONAL FINANCE
Grade levels 10-12 (.5 business credit)
This course is devoted to increasing student awareness of important consumer decisions that will help them become more knowledgeable and responsible consumers. Topics covered include developing a personal budget, financial planning, and proper use of credit, understanding taxes, finding a place to live, and understanding the various types of insurance.

08091/08092 ENTREPRENEURSHIP
Grade levels 11-12 (.5 credit)
Course Requirements: Teacher interview/approval. Strong attendance record required. Student will be required to remain in class entire year. Any student who does not complete the course will be expected to reimburse the program in the amount that has been invested in that student.
Youth Entrepreneurs® is an engaging elective course and alumni program that prepares students for success in the workplace and in life. Students will be operating their own pop-up business with the opportunity to earn a profit, as well as developing a business idea, plan, and pitch.
Entrepreneurship acquaints students with the knowledge and skills necessary to own and operate their own businesses. Topics from several fields typically form the course content: economics, marketing principles, human relations and psychology, business and labor law, legal rights and responsibilities of ownership, business and financial planning, finance and accounting, and communication.

05095 BUSINESS MANAGEMENT
Grade levels 11-12 (.5 credit)
This course acquaints students with management opportunities and effective human relations. This course provides students with the skills to perform planning, staffing, financing, and controlling functions within a business. In addition, they provide a macro-level study of the business world, including business structure and finance, and the interconnections among industry, government, and the global economy. The course emphasizes problem-based, real-world applications of business concepts and use accounting concepts to formulate, analyze, and evaluate business decisions.

05041/05042 WEB PAGE DESIGN
Grade levels 11-12 (1 credit)
Description on page 36.

APPLICATION-LEVEL COURSES

05011/05012 APPLIED BUSINESS DEVELOPMENT Grade levels 12 (1 credit)
In this capstone course, Applied Business Development students will practice skills of planning, organizing, directing and controlling functions of operating a business while assuming the responsibilities and risks involved. Students will develop skills in enterprise development, market analysis and financial preparation. This course includes classroom activities as well as involving further study of the field and discussion regarding real-world experiences and applications that students encounter in owning and managing a business.

EDUCATION & TRAINING CAREER CLUSTER

Teaching & Training Pathway

Level	Course Name	Course Code	Credit	Grade
Introductory	Career & Life Planning	19258	0.5	8
Technical	Human Growth & Development	45004	0.5	9
Technical	Family Studies	19255	0.5	10
Technical	Teaching As A Career	19151	0.5	11
Application	Teaching Internship	19152	1	12

TECHNICAL LEVEL COURSES

07170 HUMAN GROWTH AND DEVELOPMENT
Grade levels 9-12 (.5 credit)
Students will analyze the principles and the conditions that influence human growth and development across the life span. Course includes an examination of emotional and social well-being, factors that shape personality and self-image, effective communication skills, handling challenges and conflict, and building and maintaining healthy relationships. Students may have the opportunity to observe and interact with children.

07140 FAMILY STUDIES
Grade levels 10-12 (.5 credit)
Students will examine feelings about parenthood, its responsibilities, and its impact on society. They will also examine the skills involved in good parenting techniques that maximize human growth and development. Prenatal development, pregnancy, the baby's arrival and childhood development are emphasized. Students will have the opportunity to experience parenthood firsthand by using a computerized infant simulator**.**

19151/19152 TEACHING AS A CAREER
Grade levels 11-12 (1 credit)
Prerequisite: **Student must have completed Career & Life Planning or Human Growth & Development**
Teaching Profession courses introduce students to the principles underlying teaching and learning, the responsibilities and duties of teachers, and the techniques of imparting knowledge and information. These courses typically expose students to and train them in classroom management, student behavior, leadership and human relations skills, assessment of student progress, teaching strategies, and various career opportunities in the field of education.

APPLICATION-LEVEL COURSE

19161/19162 TEACHING INTERNSHIP
Grade levels 12 (1 credit)
Prerequisite: **Student must have completed Teaching as a Career and have instructor approval.**
Offered every other year.
Educational Methodology courses prepare students to teach and guide others. These courses typically provide opportunities for students to develop their own teaching objectives, to design lesson plans, and to experience teaching in a controlled environment. Students examine and practice teaching strategies, learning styles, time management and planning strategies, presentation and questioning skills, classroom management, and evaluation techniques.

HEALTH & BIO SCIENCES CAREER CLUSTER

Health Science Pathway

Level	Course Name	Course Code	Credit	Grade
Introductory	Intro to Health Care	14000	0.5	9
Introductory	Biology	03051	1	9
Technical	Nutrition and Wellness	19253	0.5	9
Introductory	Chemistry	03101	1	10
Technical	Care of Athletes	14062	0.5	10
Technical	AP Biology	03056	1	11
Technical	Human Anatomy & Physiology	03053	1	11
Technical	College Medical Terminology	14154	0.5	11
Technical	Sports Medicine 1	14072	1	11
Technical	Physical Therapy	14060	1	11
Application	Certified Nursing Assistant	14997	0.5	11
Application	Certified Medication Aide	36156	0.5	12
Application	Home Health Aide	36053	0.5	12
Application	Health Care Work Experience	36992	1	12

INTRODUCTORY LEVEL COURSES

14000 Intro to Health Care
Grade level 9 (.5 credit)
This course provides students with the basic knowledge of health/wellness professionals in private business and industry, community organizations, and health care settings, as well as job opportunities, wage, and duties. This class includes instruction in personal health, community health and welfare, nutrition, epidemiology, disease prevention, fitness and exercise, and health behaviors that are associated with various health careers. This course is required for pathway approval.

04811/04812 BIOLOGY
Grade levels 9-12 (1 credit)
Biology courses are designed to provide information regarding the fundamental concepts of life and life processes. This course includes (but are not restricted to) such topics as cell structure and function, general plant and animal physiology, genetics, and taxonomy. Special attention should be given to health careers, related technical skills, and technology associated with these professions.

04861/04862 CHEMISTRY
Grade levels 10-12 (1 credit)
Chemistry courses involve studying the composition, properties, and reactions of substances. These courses typically explore such concepts as the behaviors of solids, liquids, and gases; acid/base and oxidation/reduction attention should be given to health careers, related technical skills, and technology associated with these professions.

TECHNICAL LEVEL COURSES

07120 NUTRITION & WELLNESS
Grade levels 9-12 (.5 credit)
Students will gain the knowledge to make informed decisions about creating and maintaining all aspects of personal wellness. They will understand the components needed in life to be physically, mentally and socially fit. They will also understand the importance of nutrients in the body and how they work together to promote good health. Students will have the opportunity to use the knowledge gained to prepare healthful foods in a group setting.

04813/04814 AP BIOLOGY
Grade levels 11 and 12 (1 credit) *Prerequisite:* **Biology and Chemistry with a recommended grade of B or above or instructor permission.**
AP Biology is an introductory, college-level biology course. Students expand their understanding of biology through inquiry-based investigations as they explore the following topics: evolution, cellular processes, energy and communication, genetics, information transfer, ecology, studying the interactions with the living and nonliving components of the environment.

04831/04832 HUMAN ANATOMY AND PHYSIOLOGY Grade levels 11-12 (1 credit)
Usually taken after a comprehensive initial study of biology, Anatomy and Physiology presents the human body and biological systems in more detail. In order to understand the structure of the human body and its functions, students learn anatomical terminology, study cells and tissues, explore functional systems (skeletal, muscular, circulatory, respiratory, digestive, reproductive, nervous, and so on), and may dissect mammals. Special attention should be given to health careers, related technical skills, and technology associated with these professions.

14999 COLLEGE MEDICAL TERMINOLOGY
Grade level 11-12 (.5 credit) *Prerequisites:* **Students must meet qualifying reading assessment to enroll in this class. Qualifying ACT Reading score of 18.**
In Medical Terminology, students learn how to identify medical terms by analyzing their components. These courses emphasize defining medical prefixes, root words, suffixes, and abbreviations. The primary focus is on developing both oral and written skills in the language used to communicate within health care professions.

14072 SPORTS MEDICINE 1
Grade levels 11-12 (1 credit)
This course is designed to teach students components of exercise science/sports medicine; including exploration of therapeutic careers, medical terminology, anatomy and physiology, first aid, injury prevention principles, the healing process, rehabilitation techniques, therapeutic modalities, sport nutrition, sport psychology, and performance enhancement philosophies.

14060 PHYSICAL THERAPY
Grade levels 11-12 (1 credit)
Physical Therapy courses provide students with the knowledge and skills necessary to work with patients who need to achieve and maintain functional rehabilitation and to prevent malfunction or deformity. Topics covered typically include therapeutic exercises and activities (such as stretching and strengthening), how to train patients to perform the activities of daily living, the use of special equipment, and evaluation of patient progress.

14062 CARE OF ATHLETES
Grade levels 10-12 (.5 credit)
Provide students with the knowledge of therapeutic tasks that would be designated by a certified athletic trainer or fitness specialist. Topics covered will include an overview of the athletic medicine team, basic legal and ethical considerations in athletic medicine, basic anatomy terms and concepts, basic patient assessment and basic principles of assessment, management and rehabilitation as it relates to an athletic population.

APPLICATION-LEVEL COURSES

14997 CERTIFIED NURSING ASSISTANT
Grade level 11 or 12 (.5 credit, 5 college credit hours)
Prerequisites: **Students must meet qualifying reading assessment to enroll in this class. Qualifying ACT Reading score of 18.**
A program that prepares students to perform routine nursing-related services to patients in hospitals or long-term care facilities, under the training and supervision of an approved teacher, registered nurse or licensed practical nurse. This class results in the opportunity to test for KS certification in CNA. This class is a dual credit course; students will have to pay Cowley County Community College tuition and fees.

14998 CERTIFIED MEDICATION AIDE
Grade level 12 (.5 credit) *Prerequisites:* **Students must have completed the Certified Nursing Assistant certification and be 18 years of age.**
A program that prepares students to administer prescribed medications; observe and report patient reactions and side effects; and perform related emergency and recording duties under the supervision of nurses and/or physicians. Includes instruction in basic anatomy and physiology, common medications and their effects, taking vital signs, oxygen administration, medication administration and application, record-keeping, and patient observation.

36053 HOME HEALTH AIDE
Grade level 12 (.5 credit)
This course will teach students how to care for individuals within their homes under the direct supervision of a nurse. Course content will include patient care, comfort, and safety; anatomy and physiology; the prevention of disease and infection; nutrition and meal preparation; human relations; and first aid and CPR. Additional topics that must be included to receive a full credit are therapy strategies, household management and employability. This class results in the opportunity to test for KS certification of Home Health Aide.

36992 HEALTH CAREER WORKPLACE EXPERIENCE Grade level 12 (1 credit)
Provides students with Professional Learning Experiences (PLE) to gain extensive knowledge of health/wellness professionals in private/public industry, community organizations, and health care settings, as well as job opportunities, wage, and duties. Students will gain extensive knowledge in selected areas of health care, specific occupations, skills sets, educational requirements, credentials/licensure, and daily routines by participating in Job Shadows or Internships. This class includes instruction in specific skill sets related to health occupations, research on emerging trends, exploration of daily routines, understanding code of ethics, patient rights, standards and regulations, safety, and legal requirements. Collaboration with local healthcare professionals, organizations and businesses is highly encouraged to offer PLE with documentation of the student experience.

HOSPITALITY & TOURISM CAREER CLUSTER

Restaurant & Event Management Pathway

Level	Course Name	Course Code	Credit	Grade
Introductory	Business Essentials	12050	0.5	8
Introductory	Career & Life Planning	19258	0.5	8
Technical	Culinary Essentials	16052	0.5	9
Technical	Nutrition & Wellness	19253	0.5	9
Technical	Culinary Arts 1	34056	0.5	10
Technical	Principles of Marketing	12164	1	10
Technical	Entrepreneurship	12053	0.5	11
Application	Community Connections	19297	0.5	11
Application	Career Connections	19298	0.5	11
Application	Applied Business Development	32200	1	12

TECHNICAL LEVEL COURSES

07180 CULINARY ESSENTIALS
Grade levels 9-12 (.5 credit)
Prerequisite: C or better in Nutrition & Wellness
Students will gain the knowledge of kitchen tools and equipment, food safety and sanitation, meal planning and nutrition, and basic food preparation techniques. Students will have the opportunity to prepare a variety of foods in a group setting.

07120 NUTRITION &WELLNESS
Grade levels 9-12 (.5 credit)
Students will gain the knowledge to make informed decisions about creating and maintaining all aspects of personal wellness. They will understand the components needed in life to be physically, mentally and socially fit. They will also understand the importance of nutrients in the body and how they work together to promote good health. Students will have the opportunity to use the knowledge gained to prepare healthful foods in a group setting.

07181/07182 CULINARY ARTS I Grade levels 10-12 (1 credit) only offered in even graduation years.
Prerequisite: **Culinary Essentials**
Understand the importance of health, safety and environmental management systems in organizations and their importance to organizational performance and regulatory compliance. Demonstrate food safety and sanitation procedures. Students will have the opportunity to prepare a variety of foods in a group setting.

05213/05214 PRINCIPLES OF MARKETING
Grade levels 10-12 (1 credit)
Description on page 30.

08091/08092 ENTREPRENEURSHIP
Grade levels 11-12 (.5 credit)
Description on page 30.

APPLICATION-LEVEL COURSES

07196 COMMUNITY CONNECTIONS
Grade levels 11-12 (.5 credit) only offered in in even graduation years.
Community Connections courses provide community based/school-based learning experiences mainly within the family and consumer sciences classroom. Learning goals are set by the student, teacher and community partners to create experiences and/or discussions to enhance the development of the 21st century skills needed to be successful in human services/family and consumer sciences related careers.

07197 CAREER CONNECTIONS Grade levels 11-12 (.5 credit) only offered in odd graduation years.
Career Connections courses provide human services/family and consumer sciences related work-based learning experiences (paid or unpaid) outside the traditional classroom. Learning goals are set by the student, teacher and employer/adult mentor to create field experiences and/or discussions related to human services/ family and consumer sciences occupational technical skill.

05011/05012 APPLIED BUSINESS DEVELOPMENT Grade levels 12 (1 credit)
Description on page 30.

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HUMAN SERVICES CAREER CLUSTER

Family and Community Services Pathway

Level	Course Name	Course Code	Credit	Grade
Introductory	Career and Life Planning	19258	0.5	8
Technical	Human Growth and Development	45004	0.5	9
Technical	Family Studies	19255	0.5	9
Technical	Culinary Essentials	16052	0.5	9
Technical	Nutrition and Wellness	19253	0.5	9
Technical	Consumer & Personal Finance	22210	0.5	10
Application	Community Connections	19297	0.5	11
Application	Career Connections	19298	0.5	11

TECHNICAL LEVEL COURSES

07170 HUMAN GROWTH AND DEVELOPMENT
Grade levels 9-12 (.5 credit)
Students will analyze the principles and the conditions that influence human growth and development across the life span. Course includes an examination of emotional and social well-being, factors that shape personality and self-image, effective communication skills, handling challenges and conflict, and building and maintaining healthy relationships. Students may have the opportunity to observe and interact with children.

07140 FAMILY STUDIES
Grade levels 10-12 (.5 credit)
Students will examine feelings about parenthood, its responsibilities, and its impact on society. They will also examine the skills involved in good parenting techniques that maximize human growth and development. Prenatal development, pregnancy, the baby's arrival and childhood development are emphasized. Students will have the opportunity to experience parenthood firsthand by using a computerized infant simulator**.**

07180 CULINARY ESSENTIALS
Grade levels 9-12 (.5 credit)
Prerequisite: **C or better in Nutrition & Wellness**
Students will gain the knowledge of kitchen tools and equipment, food safety and sanitation, meal planning and nutrition, and basic food preparation techniques. Students will have the opportunity to prepare a variety of foods in a group setting.

07120 NUTRITION &WELLNESS
Grade levels 9-12 (.5 credit)
Students will gain the knowledge to make informed decisions about creating and maintaining all aspects of personal wellness. They will understand the components needed in life to be physically, mentally and socially fit. They will also understand the importance of nutrients in the body and how they work together to promote good health. Students will have the opportunity to use the knowledge gained to prepare healthful foods in a group setting.

05217 CONSUMER & PERSONAL FINANCE
Grade levels 10-12 (.5 business credit)
This course is devoted to increasing student awareness of important consumer decisions that will help them become more knowledgeable and responsible consumers. Topics covered include developing a personal budget, financial planning, and proper use of credit, understanding taxes, finding a place to live, and understanding the various types of insurance.

APPLICATION-LEVEL COURSES

07196 COMMUNITY CONNECTIONS
Grade levels 11-12 (.5 credit) –only offered in even graduation years.
Community Connections courses provide community based/school-based learning experiences mainly within the family and consumer sciences classroom. Learning goals are set by the student, teacher and community partners to create experiences and/or discussions to enhance the development of the 21st century skills (i.e. leadership, empathy, communication, problem solving, cooperation, critical thinking, and resource management) needed to be successful in human services/family and consumer sciences related careers.

07197 CAREER CONNECTIONS
Grade levels 11-12 (.5 credit) –only offered in odd graduation years.
Career Connections courses provide human services/family and consumer sciences related work-based learning experiences (paid or unpaid) outside the traditional classroom. Learning goals are set by the student, teacher and employer/adult mentor to create field experiences and/or discussions related to human services/ family and consumer sciences occupational technical skill.

INFORMATION TECHNOLOGY CAREER CLUSTER

Web and Digital Communications Pathway

Level	Course Name	Course Code	Credit	Grade
Introductory	Computer Applications	10004	1	9
Technical	Computer Graphics	10202	1	10
Technical	Graphic Design	11154	1	11
Technical	Computer Science Principles	05056/05057	1	9-12
Technical	Web Page Design	10201	1	11
Application	Particular Topics in Media Technology	10204	1	12

INTRODUCTORY LEVEL COURSE

05023/05024 COMPUTER APPLICATIONS A & B
Grade levels 9-12 (1 credit)
This course is designed to develop students' computer literacy. The student will learn from hands-on experiences basic skills in word processing, spreadsheets, and graphical presentations using Microsoft Office.

TECHNICAL LEVEL COURSES

07693/07694 COMPUTER GRAPHICS
Grade levels 10-12 (1 fine arts credit)
Computer Graphics courses provide students with the opportunity to explore the capability of the computer to produce visual imagery and to apply graphic techniques to various fields, such as advertising, TV/video and architecture. Typical course topics include modeling, simulation, animation, and image retouching.

07701/07702 GRAPHIC DESIGN
Grade levels 11-12 (1 credit fine arts credit)
Graphic Design courses emphasize design elements and principles in the purposeful arrangement of images and text to communicate a message. They focus on creating art products such as advertisements, product designs, and identity symbols. Graphic Design courses may investigate the computer's influence on and role in creating contemporary designs and provide a cultural and historical study of master design works of different periods and styles.

05041/05042 WEB PAGE DESIGN
Grade levels 10-12 (1 credit)
Web Page Design courses teach students how to design web sites by introducing them to and refining their knowledge of site planning, page layout, graphic design, and the use of markup languages—such as Extensible Hypertext Markup, JavaScript, Dynamic HTML, and Document Object Model—to develop and maintain a web page. These courses may also cover security and privacy issues, copyright infringement, trademarks, and other legal issues relating to the use of the Internet. Advanced topics may include the use of forms and scripts for database access, transfer methods, and networking.

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05056/05057 COMPUTER SCIENCE PRINCIPLES
Grade levels 9-12 (1 credit)
Computer Science Principles covers many topics including the Internet, Big Data and Privacy, and Programming and Algorithms (JavaScript). Designed for 9 - 12 grade students, CS Principles introduces students to the foundational concepts of computer science and challenges them to explore how computing and technology can impact the world.

APPLICATION-LEVEL COURSE

07993/07994 PARTICULAR TOPICS IN MEDIA TECHNOLOGY Grade levels 12
Prerequisite: **Student must have completed one credit of technical level coursework and have instructor approval.**
Particular Topics provides a career-building, college preparing experience through project-based learning. The course provides students with work experience in fields related to media technology. It serves as an application class for the Web & Digital Communications pathway. Students will use skills acquired from intro and technical level classes in authentic work for clients

LAW, PUBLIC SAFETY & SECURITY CAREER CLUSTER

Emergency and Fire Management Services Pathway

Level	Course Name	Course Code	Credit	Grade
Introductory	Introduction to Law Public Services & Security	44001	0.5	9
Courses are available through Cowley College	EMT 1	44060	1	11-12
	Hazardous Materials for the First Responder	44070	0.5	11-12
	Fire Science 1	44100	1	11-12
	Fire Science II	44101	1	11-12
	EMT II	44065	1	11-12

44001 INTRODUCTION TO LPSS Grade level 9-12 (.5 credit)
Intro to Law is designed to introduce students to careers in the Law, Public Service and Security (LPSS) career field. Students will have the opportunity to examine career options and speak with professionals currently in the field. The class will also examine a variety of topics related to the LPSS career pathway.

These courses will be through Cowley College.

Fire Science I
EMT I
Hazardous Materials for the First Responder
Fire Science II
EMT II

EXCEL IN CTE
COWLEY COLLEGE COURSES
TAKE THE FASTTRACK!

The State of Kansas will pay your tuition for qualifying Career and Technical Education classes, so you can take the FastTrack toward earning a degree, certificate, industry-recognized credentials, or work-ready skills. Cowley College's career and technical programs prepare individuals for a wide array of challenging careers in specialized labor markets.

This tuition-free incentive program encourages high school students to gain the training needed to enter a profession and, in many cases, earn an industry-recognized credential prior to graduating from high school.

Qualified juniors and seniors in public, private, and homeschool high schools are eligible for free tuition through the Excel in CTE Initiative for Kansas Residents. Cowley College pays your incidental fees; however, you will need to purchase textbooks and may incur some small program fees. For a list of the courses visit https://www.cowley.edu/freetuition/docs/sb155courses.pdf?v=06.19 or visit the counseling office.

Cowley College CTE Programs

Career and Technical Education (CTE) prepares individuals for a wide array of challenging careers in a demanding economy and specialized labor market. It provides foundational skills, both technical and academic, that lead to lucrative employment, as well as further educational opportunities.

Cowley College's CTE department is in three locations—Ark City campus (Walker Technology building), Sumner-Cowley Campus and Mulvane Technology Centers.

Free Tuition for High School Students
High school students can take tuition-free CTE classes at Cowley College! The Kansas Board of Regents will pay for the tuition so that students can gain the training needed to enter a profession, and in many cases, earn an industry-recognized credential. Students will need to purchase textbooks and may incur some small fees (tools, background checks as required, supplies, etc.)

Prerequisites for all CTE classes:
1. Students must have a GPA of at least a 2.0.
2. Students will fill out their portion of the Fast Track form, Checklist form, and the permission to release information form (forms located in counseling office).
3. Students must fill out the on-line college application.
4. Students must take the Next Generation Accuplacer reading assessment either at their high or at the college, and earn a score of 224 or higher. The ACT reading assessment is also acceptable with a score of 16 or higher.
5. Students must be willing to commit to a 2-year program.
6. Students are responsible for transportation to the selected course location for their courses**.**

08301/08302 NONDESTRUCTIVE TESTING
Cowley's Nondestructive Testing program provides tremendous opportunities in safety & quality inspection. The NDT program offers an Associate of Applied Science degree that is currently in high demand. NDT students develop the knowledge and skills required to perform sophisticated testing techniques such as eddy current, x-ray, liquid dye penetrant, magnetic particle, and ultrasonic testing that are currently required in many different industry fields.

You will learn blueprint reading, basic metallurgy, measurement, and proper use of equipment used in the various NDT testing processes. Mid-level mathematics, communication skills, writing, and understanding codes & procedures, materials composure, and basic theories of economics are also integrated into the program.

Upon completion of this program, students will be prepared to develop and maintain quality control programs. Students will be trained to set up and calibrate equipment, as well as interpret and evaluate results based upon Nondestructive testing methods with respect to applicable codes, standards, and specifications. Students will be prepared for the American Society of Nondestructive Testing (ASNT) certification examination.

08901/08902 MANUFACTURING TECHNOLOGY (MECHATRONICS)
Manufacturing Technology (Mechatronics) is the combination of many disciplines. Computer Programming, Electronics, Programmable Logic Controllers, and Robotics are key fields, with specific skills including: panel wiring, machine set-up/trouble shooting, and quality control
Manufacturing Technology (Mechatronics) is the first program in the state to address the demand for specialized technicians. Cowley College continues to address current and future demands, by continually building relationships with industry leaders.
Manufacturing Technology (Mechatronics) teaches the design, building, and maintaining of equipment that combines electronics, mechanics, pneumatics, hydraulics, and computer control systems.

08501/08502 WELDING TECHNOLOGY
Cowley's welding program provides tremendous opportunities in new welding development like exotic metal types, laser welding, and working with automated plasma cutters.

Skilled welders work from drawings and specifications, set up and create welds, and examine and inspect welds to ensure specifications are met. Program emphasis is on processes including SMAW, GTAW, GMAW, and structural and pipe welding. Cowley College provides well-equipped laboratories that enable students to receive instruction in oxyacetylene welding and cutting, shielded metal arc welding (SMAW), gas metal arc welding (GMAW), gas tungsten arc welding (GTAW), metallurgy, plasma cam cutting and allied processes. machines for complex and sophisticated machining processes. Students will also learn quality control methods using the latest measuring and inspection instrumentation. With this type of equipment, students are able to produce aerospace-quality projects. Industry support has made it possible to take classes on field trips, which give greater dimension to the student experience.

08401/08402 MACHINE & TOOL TECHNOLOGY

In the Machine Tool Technology classes at Cowley College, students are trained on machine tools that are the standard of the industry. Students will find lathes, milling machines, precision-grinding equipment, and many other machine tools, all of which are of state-of-the-art design. Many of our machines are computer-controlled; students have the opportunity to learn computer numerical controlled programming of these

08101/08102 AUTOMOTIVE TECHNOLOGY

Cowley's automotive program includes: classroom instruction, hands-on laboratories, and an online CDX subscription. Specific subjects include electrical and electronic systems, suspension and steering, engine performance, manual transmissions and transaxles, heating and air conditioning, engine repair, automatic transmissions, and brakes. Students have the opportunity to work on high tech automobiles using the latest diagnostic tools and equipment.