

**Course Catalog
Hardin Valley Academy
2020-2021 School Year**



NOTE:

The courses listed in this catalog are from Knox County School's progression plan for the 2020-2021 school year and only list courses available for selection through Hardin Valley Academy. Final course availability will be developed based on courses requests from course selection sheets by students in the spring of 2020.

Graduation Credit Requirements:

CORE SUBJECTS	TOTAL CREDITS
English: English I, II, III, IV	4
Mathematics: Algebra I, Geometry, Algebra II, one high level math	4
Science: Biology, Chemistry or Physics, one additional Lab science	3
Social Studies: World History and Geography or AP Human Geography	1
Social Studies: US History and Geography	1
Social Studies: US Government and Civics	1/2
Social Studies: Economics	1/2
Physical Education	1/2
Lifetime Wellness	1
Personal Finance	1/2
Elective Focus	3
University Admissions Students must complete two units of the same world language and one unit of fine/performing arts in order to meet college/university admission requirements	3
Additional Elective Credits	6
TOTAL	28
All students are required to take the ACT or SAT to meet graduation requirements.	
Successful completion of the Tennessee Civics Assessment (minimum 70%) is required.	

Courses That May Substitute for Required Courses:

COURSES	MAY SUBSTITUTE FOR
Physics	Fourth Mathematics credit provided it was not used as a third lab science
AP Capstone	English 4
DE English 1010 or 1020	English 4
JROTC – 2 credits	½ credit of Physical Education 1 credit Lifetime Wellness
JROTC – 3 credits	½ credit Personal Finance If teacher is HQ ½ credit of US Government

ELECTIVE FOCUS

<i>A three (3) credit Elective Focus is a graduation requirement. The table below provides the approved Elective Focus units.</i>	
MATH AND SCIENCE	Any combination of three Math and/or Science electives in addition to the required math and science courses
HUMANITIES	Any combination of courses in English/Language Arts, World Languages (above Level 2 if completing University Admissions requirement), and Social Studies, above the core requirements
FINE ARTS	Any combination of courses in Visual and/or Performing Arts, Theatre and Dance above the core requirements for University Admissions.
CAREER AND TECHNICAL EDUCATION	Any combination of three units in the same Program of Studies
INTERVENTION ACADEMIC ELECTIVE FOCUS	Any combination of courses in Tier 2 and Tier 3 intervention.

ADVANCED PLACEMENT	Any combination of three of the same type course (i.e. 3 AP courses, 3 IB courses, or 3 Dual Enrollment or Dual Credit courses).
INTERNATIONAL BACCALAUREATE	AP/IB/Dual Enrollment or Dual Credit courses may be used to satisfy core requirements and the elective focus requirement (i.e. AP US History may satisfy core requirements and may count as one course in an AP Elective Focus.)
DUAL ENROLLMENT	
DUAL CREDIT	
JROTC	Any combination of 3 credits of JROTC
PHYSICAL FITNESS	Any three Physical Education courses above the core requirements. Students taking a full credit PE course to satisfy the additional ½ PE credit must take an additional three courses to complete a Physical Fitness Focus
STEM	Three elective credits earned in either STEM courses (special course designations) or a combination of three additional elective credits in Science, Technology, and/or Math courses where a significant portion (more than 25%) of the course is based on original inquiry and design.
AVID	Any combination of three credits of consecutive AVID course
HUMAN SERVICES	Any combination of courses in Peer Tutoring, Leadership, and ACTS/Service Learning.

NCAA Requirements for College Scholarships in Athletics:

Refer to [NCAA GUIDE FOR THE COLLEGE-BOUND STUDENT ATHLETE](#) for information on Division I, II, and III colleges and universities. For additional information, visit [NCAA FUTURE ELIGIBILITY CENTER](#)

The NCAA form (48-H) lists the course titles and the course numbers of all courses that meet NCAA core course requirements. This form can be completed by each school and sent in to the NCAA Initial Eligibility Clearinghouse. For more information, visit [NCAA 48H COURSES](#)

Division I:

To be eligible to compete in NCAA sports during a student's first year at a **DIVISION I** school, that student-athlete must graduate high school and meet **ALL** the following requirements:

Complete **16 core courses:**

- Four credits of English;
- Three credits of math (Algebra I or higher);
- Two credits of natural/physical science, including one credit of a lab science if offered at the student's high school;
- One additional credit of English, math, or natural/physical science;
- Two credits of social science;
- Four additional credits of English, math, natural/physical science, social science, foreign language, comparative religion or philosophy;
- Complete ten core courses, including seven in English, math or natural/physical science before the student's seventh semester. Once the seventh semester has started, a student must have more than ten core courses completed to be able to repeat or replace any of the ten courses used to meet the 10/7 requirement;
- Earn at least a **2.3 GPA** in the core courses;
- Earn an **SAT combined score or ACT sum score** matching the core-course GPA on the Division I sliding scale, which balances the test score and core-course GPA. If a student- athlete has a low test score, a higher core-course GPA is needed to be eligible. If the student-athlete has a low core-course GPA, a higher test score is needed to be eligible.

Division II:

To be eligible to compete in NCAA sports during a student's first year at a **DIVISION II** school, the student-athlete must meet academic requirements for the core courses, grade point average (GPA) and test scores and meet the following requirements:

Complete **16 core courses:**

- Three credits of English;
- Two credits of math (Algebra I or higher);
- Two credits of natural/physical science, including one credit of a lab science if offered at the student's high school;
- Three additional credits of English, math, or natural/physical science;
- Two credits of social science;
- Four additional credits of English, math, natural/physical science, social science, foreign language, comparative religion or philosophy;
- Earn at least a **2.2 GPA** in the core courses;
- Earn an **SAT combined score or ACT sum score** matching the core-course GPA on the Division II sliding scale, which balances the test score and core-course GPA. If a student- athlete has a low test score, a higher core-course GPA is needed to be eligible. If the student-athlete has a low core-course GPA, a higher test score is needed to be eligible.

Division III:

DIVISION III schools provide an integrated environment focusing on academic success while offering a competitive athletics environment. Division III rules minimize potential conflicts between athletics and academics and focus on regional in-season and conference play.

While Division III schools do not offer athletics scholarships, 80 percent of Division III student-athletes receive some form of merit or need-based financial aid.

A student who plans to attend a Division III school does not need to register with the NCAA Eligibility Center. Division III schools set their own admission and eligibility standards.

Please be advised that NCAA eligibility requirements are not likely to allow credit for a course taken through recovery credit, even if it is an approved course.

For additional information, visit [NCAA ELIGIBILITY CENTER](#). This site will provide information regarding initial-eligibility at NCAA Division I and II member colleges and universities. The NCAA Eligibility Center serves three main constituent groups: prospective student-athletes, high school administrators, and NCAA m

HIGH SCHOOL COURSE DESCRIPTIONS

Career and Technical Education:

The state of Tennessee department of education provides a complete CTE programs of study document annually with periodic updates throughout the year. This document outlines the state’s approved CTE programs of study within the 16 nationally recognized career clusters. Included in the document for each program of study are the approved course sequences, aligned alternative academic courses (AP, AICE, etc.), and available state-approved industry certifications. For additional information on any of the CTE programs of study or courses described below, please refer to the *2020-21 Programs of Study* document included as an addendum to this progression plan.

Courses that are aligned to state-approved National Industry Certifications are labeled as “NIC” courses. Students who participate in CTE courses with the “NIC” label may be eligible for additional quality points and final-grade percentage points based upon the Knox County Board of Education’s Uniform Grading Policy (I-341).

Advanced Manufacturing:

Principles of Manufacturing (NIC):

Principles of Manufacturing is the Level 1 Course for all programs of study within the Advanced Manufacturing Career Cluster. (Other courses available in the Advanced Manufacturing cluster follow this description.)

Designed to provide students with exposure to various occupations and pathways in the Advanced Manufacturing career cluster, such as Machining Technology, Electromechanical Technology, Mechatronics, and Welding. In order to gain a holistic view of the advanced manufacturing industry, students will complete all

core standards, as well as standards in two focus areas. Throughout the course, students will develop an understanding of the general steps involved in the manufacturing process and master the essential skills to be an effective team member in a manufacturing production setting. Course content covers basic quality principles and processes, blueprints and schematics, and systems. Upon completion of this course, proficient students will advance from this course with a nuanced understanding of how manufacturing combines design and engineering, materials science, process technology, and quality. Upon completion of the Principles of Manufacturing course, students will be prepared to make an informed decision regarding which Advanced Manufacturing program of study to pursue. Standards in this course are aligned with Tennessee State Standards for English Language Arts & Literacy in Technical Subjects and Tennessee State Standards in Mathematics. Prerequisite(s)/corequisites: Algebra I and Physical Science strongly recommended

Credit 1- Grade 9

Electromechanical Technology:

Introduction to Electromechanical (NIC):

Introduction to Electromechanical is a foundational course that introduces students to basic electro-mechanical skills necessary in a manufacturing facility. Topics covered include safety, construction drawings, site layout, hand and power tools, linear and angular measurements, and application of algebraic and geometric principles to construction problems. Upon completion of this course, proficient students will be able to understand, describe, and troubleshoot electromechanical systems. Standards in this course are aligned with Tennessee State Standards in English Language Arts & Literacy in Technical Subjects and Tennessee State Standards in Mathematics. Prerequisite(s) Principles of Manufacturing, Algebra I, and Physical Science. Algebra I and Physical Science may be taken as co-requisites.

Credits 1 - Grade Level 10

Advanced Electromechanical (NIC):

Advanced Electromechanical is designed to provide students with the knowledge and skills to effectively perform basic industrial maintenance procedures in an advanced manufacturing facility. Students in this course develop proficiency in a vast array of electromechanical domains, including: fundamental safety practices in electromechanical technology, shielded metal arc welding (SMAW), basic metal inert gas (MIG) welding, electrical systems, AC and DC motors, calibrating instruments, drive systems, pipe fabrication, hydraulic systems, pumps, digital electronics, programmable logic controllers (PLC), and troubleshooting procedures. Upon completion of this course, proficient students will be prepared to pursue postsecondary electromechanical technology programs and entry-level industrial maintenance technology careers in the advanced manufacturing industry. Standards in this course are aligned with Tennessee State Standards for English Language Arts & Literacy in Technical Subjects and Tennessee State Standards in Mathematics. Prerequisite(s) Algebra, Geometry, Physical Science, and Introduction to Electromechanical.

Credits 2 -Grade Level 11

Welding:

Welding I (NIC):

Welding I is designed to provide students with the skills and knowledge to effectively perform cutting and welding applications used in the advanced manufacturing industry. Proficient students will develop proficiency

in fundamental safety practices in welding, interpreting drawings, creating computer aided drawings, identifying and using joint designs, efficiently laying out parts for fabrication, basic shielded metal arc welding (SMAW), mechanical and thermal properties of metals, and quality control. Upon completion of this course, proficient students will understand the requirements to pursue the American Welding Society (AWS) Entry Welder qualification and examination and will be prepared to undertake more advanced welding coursework. Standards in this course are aligned with Tennessee State Standards for English Language Arts & Literacy in Technical Subjects and Tennessee State Standards in Mathematics. Prerequisite(s) Principles of Manufacturing.
Credit 1 - Grade Level 10

Welding II (NIC):

Welding II is designed to provide students with opportunities to effectively perform cutting and welding applications of increasingly complexity used in the advanced manufacturing industry. Proficient students will build on the knowledge and skills of the Welding I course and apply them in novel environments, while learning additional welding techniques not covered in previous courses. Specifically, students will be proficient in (1) fundamental safety practices in welding, (2) gas metal arc welding (GMAW), (3) flux cored arc welding (FCAW), (4) gas tungsten arc welding (GTAW), and (5) quality control methods. Upon completion of the Welding II course, proficient students will be eligible to complete the American Welding Society (AWS) Entry Welder qualification and certification. Standards in this course are aligned with Tennessee State Standards for English Language Arts & Literacy in Technical Subjects and Tennessee State Standards in Mathematics. Prerequisite(s) Welding I.
Credit: 2 - Grade Level 11 – 12

Capstone Course for Multiple Advanced Manufacturing Programs (See 2020-21 CTE Programs of Study Addendum):

Manufacturing Practicum:

Manufacturing Practicum is a capstone course intended to provide students with the opportunity to apply the skills and knowledge learned in previous Advanced Manufacturing courses within a professional, working environment. While continuing to add to their technical skill sets, students in this course assume increasing responsibility for overseeing manufacturing processes and managing complex projects. Specifically, proficient students will be able to work in teams to plan the production of a sophisticated product; develop troubleshooting and problem-solving mechanisms to ensure that projects run smoothly; analyze output and compile professional reports; and connect practicum activities to career and postsecondary opportunities. For all projects undertaken in this course, students are expected to follow the focus area in their chosen program of study (Machining Technology, Electromechanical Technology, Mechatronics, or Welding), while also refining skills previously acquired to achieve deeper levels of mastery. Upon completion of the practicum, proficient students will be prepared for postsecondary study and career advancement in their chosen focus area. Standards in this course are aligned with Tennessee State Standards for English Language Arts & Literacy in Technical Subjects and Tennessee State Standards in Mathematics. Prerequisite(s): Minimum of two credits in an Advanced Manufacturing program of study.
Credits 1 - Grade Level 11-12

Agriculture, Food & Natural Resources:

Agriscience (NIC):

Agriscience is the Level 1 Course for all programs of study within the Agriculture, Food, & Natural Resources Career Cluster. (Other courses available in the Advanced Manufacturing cluster follow this description.) This is an introductory laboratory science course that prepares students for biology, subsequent science and agriculture courses, and postsecondary study. This course helps students understand the important role that agricultural science and technology plays in the twenty-first century. In addition, it serves as the first course for all programs of study in the Agriculture, Food, & Natural Resources cluster. Upon completion of this course, proficient students will be prepared for success in more advanced agriculture and science coursework. Standards in this course are aligned with Tennessee State Standards for English Language Arts & Literacy in Technical Subjects, Tennessee State Standards in Mathematics, and Tennessee state standards in Anatomy and Physiology, Biology I, Biology II, Chemistry I, Chemistry II, Environmental Science, Physical Science, Physics, and Physical World Concepts, as well as the National Agriculture, Food, & Natural Resources Career Cluster Content Standards. This course counts as a lab science credit toward graduation requirements.

Credit: 1 - Grade Level 9

Food Science and Safety (NIC):

Food Science and Safety is an applied-knowledge course designed for students interested in careers in food science. The course covers fundamental principles of food science, food safety and sanitation, foodborne pathogens, and food-related standards and regulations. Upon completion of this course, students will be versed in the technical knowledge and skills necessary for further education and careers in food science. Prerequisite(s) Principles of Food Production.

Credit: 1 - Grade Level 11

Architecture & Construction:

Fundamentals of Construction (NIC):

Fundamentals of Construction is the Level 1 Course for all programs of study within the Architecture & Construction Career Cluster. (Other courses available in the Architecture & Construction cluster follow this description.) This course is a foundational course in the Architecture & Construction cluster covering essential knowledge, skills, and concepts required for careers in construction. Upon completion of this course, proficient students will be able to describe various construction fields and outline the steps necessary to advance in specific construction careers. Students will be able to employ tools safely and interpret construction drawings to complete projects demonstrating proper measurement and application of mathematical concepts. Standards in this course also include an overview of the construction industry and an introduction to building systems and materials. Students will begin compiling artifacts for inclusion in their portfolios, which they will carry with them throughout the full sequence of courses in their selected program of study. Standards in this course are aligned with Tennessee State Standards for English Language Arts & Literacy in Technical Subjects, Tennessee State Standards in Mathematics, and the National Center for Construction Education and Research (NCCER) Curriculum.

Credit: 1 - Grade Level 9

Structural Systems:

Structural Systems I (NIC):

Structural Systems I prepares students for careers in residential and commercial carpentry. Upon completion of this course, proficient students will be able to demonstrate knowledge and skill in framing buildings. Students will be able to frame floors, walls, ceilings, roofs, and stairs while safely employing tools and interpreting construction drawings to complete projects. Emphasis is placed on demonstrating proper measurement and application of mathematical concepts. Standards in this course also include principles of the construction industry and business and project management. Students will continue compiling artifacts for inclusion in their portfolios, which they will carry with them throughout the full sequence of courses in this program of study. Standards in this course are aligned with Tennessee State Standards for English Language Arts & Literacy in Technical Subjects, Tennessee State Standards in Mathematics, Tennessee Physical Science Standards, Tennessee Physics Standards, and the National Center for Construction Education and Research (NCCER) Curriculum. Prerequisite(s) Fundamentals of Construction.

Credit: 1 Grade Level 10

Electrical Systems (NIC):

Electrical Systems prepares students for careers as electricians across a variety of residential and commercial environments. Upon completion of this course, proficient students will be able to implement safety procedures and tools to perform operations with device boxes, conduit, raceway systems conductors, and cable. Students will read and interpret the National Electrical Code, drawings, specifications, and diagrams to determine materials and procedures needed to complete a project. Students will calculate residential loads to recommend electrical hardware. Standards in this course also introduce basic troubleshooting procedures and power systems, and expand on principles of the construction industry, delving deeper into business and project management. Students will continue compiling artifacts for inclusion in their portfolios, which they will carry with them throughout the full sequence of courses in this program of study. Standards in this course are aligned with Tennessee State Standards for English Language Arts & Literacy in Technical Subjects, Tennessee State Standards in Mathematics, and Tennessee State Standards in Chemistry I, Physics, Physical Science, and Environmental Science, as well as the National Center for Construction Education and Research (NCCER) Curriculum. Prerequisite(s): Fundamentals of Construction.

Credit: 1 - Grade Level 11 – 12

Heating, Ventilation, & Air Conditioning (HVAC) Systems (NIC):

HVAC prepares students for careers in residential and commercial heating, ventilation, air conditioning, and refrigeration. Upon completion of this course, proficient students will be able to demonstrate knowledge and skill in performing basic operations with HVAC systems, with emphasis on safety, tools, and equipment specific to HVAC. In addition, students will be able to explain the functions and components of heating, cooling, and air distribution systems. They will demonstrate basic techniques to prepare piping and tubing for HVAC systems including performing soldering and brazing. Students will understand proper refrigerant management in preparation for EPA Section 608 Technician Certification. They will read and interpret drawings, specifications, and diagrams to determine materials needed to complete an HVAC project. Standards in this course also introduce basic troubleshooting and maintenance procedures and alternate power systems,

and expand on principles of the construction industry, delving deeper into business and project management. Students will continue compiling artifacts for inclusion in their portfolios, which they will carry with them throughout the full sequence of courses in this program of study. Prerequisite(s): Fundamentals of Construction.

Credit: 1 - Grade Level 11 – 12

Plumbing Systems (NIC):

Plumbing Systems prepares students for careers in plumbing across a variety of residential and commercial settings. Upon completion of this course, proficient students will be able to implement safety procedures and tools to perform operations with plumbing systems. Students will be able to explain how drain, waste, and vent (DWV) systems, water distribution systems, and plumbing fixtures work and apply proper tools and procedures to perform operations with plumbing piping, including measuring, cutting, joining, supporting, and hanging various types of pipe. Students will read and interpret drawings, specifications, and diagrams to determine materials needed to complete a plumbing project. Standards in this course also introduce basic maintenance and troubleshooting procedures and expand on principles of the construction industry, delving deeper into business and project management. Students will continue compiling artifacts for inclusion in their portfolios, which they will carry with them throughout the full sequence of courses in this program of study. Standards in this course are aligned with Tennessee State Standards for English Language Arts & Literacy in Technical Subjects, Tennessee State Standards in Mathematics, and Tennessee State Standards in Chemistry I, Physics, Physical Science, and Environmental Science, as well as the National Center for Construction Education and Research (NCCER) Curriculum. Prerequisite(s): Prerequisite(s): Fundamentals of Construction.

Credit: 1 - Grade Level 11 – 12

Construction Practicum:

Construction Practicum is a capstone course intended to provide students with the opportunity to apply the skills and knowledge learned in previous Architecture & Construction courses within a professional, working environment. In addition to developing an understanding of the professional and ethical issues encountered by tradesmen and contractors in the workplace, students learn to refine their skills in problem solving, communication, teamwork, and project management in the completion of a course- long project. Due to the importance of on-the-job training in the construction industry, a principle aim of the practicum is to assist students with placements where on-the-job training occurs, if available, so they can begin to log hours on a worksite and gain experience prior to entering the job market, such as in pre-apprenticeships. Additionally, students are exposed to the great range of postsecondary opportunities in today's construction fields as well, in order to prepare them to make an informed decision regarding their post-high school plans. Prerequisite(s): Minimum of 2 credits in an Architecture & Construction program of study.

Credit: 1 - Grade Level 12

Arts, Audio/Visual Technology, and Communication:

Audio/Visual (A/V) Production:

Audio/Visual Production I:

A/V Production I is a foundational course in the Arts, A/V Technology, & Communications cluster for students interested in A/V (audio/visual) production occupations. Upon completion of this course, proficient students will be able to explain and complete the phases of the production process including pre-production, production, and post-production. Students will establish basic skills in operating cameras, basic audio equipment, and other production equipment. Standards in this course include career exploration, an overview of the history and evolution of A/V production, and legal issues affecting A/V production. In addition, students will begin compiling artifacts for inclusion in a portfolio, which they will carry with them throughout the full sequence of courses in this program of study. Standards in this course are aligned with Tennessee State Standards for English Language Arts & Literacy in Technical Subjects, Tennessee State Standards in Mathematics, Tennessee State Standards for Physical World Concepts, Physical Science, Physics, and Visual Art.

Credit: 1 - Grade Level 9

Audio/Visual Production II

TA/V Production II is the second course in the A/V Production program of study intended to prepare students for a career in audio/visual production. Building on knowledge acquired in A/V Production I, this course advances technical skill in utilizing industry equipment related to lighting and audio, and it places special emphasis on the research and technical writing involved in planning productions. Upon completion of this course, proficient students will be able to plan, capture, and edit research-based productions of increasing complexity, individually and through collaboration in teams. In addition to more robust career preparation, standards in this course include an investigation of concerns affecting A/V production businesses, such as ethical and legal issues, technology, funding, and the organization of professional roles in various industries. Students will continue compiling artifacts for inclusion in their portfolios, which they will carry with them throughout the full sequence of courses in this program of study. Standards in this course are aligned with Tennessee State Standards for English Language Arts & Literacy in Technical Subjects, Tennessee State Standards for Physical World Concepts, Physical Science, and Physics. Prerequisite(s): A/V Production I.

Credit: 1 - Grade Level 10

Audio/Visual Production III:

A/V Production III is an applied-knowledge course intended to prepare students to pursue careers and postsecondary learning in audio/visual production. Students in this course will apply knowledge and skills from previous courses in the program of study to create productions both independently and in teams, with the option of participating in a work-based learning experience for additional credit. Students will use industry equipment and technology to complete all phases of the production process, including planning, coordinating, capturing, editing, and distributing productions. Standards in this course include policies and regulations, independent and collaborative productions, distribution of media, and the production of live events. Students will continue compiling artifacts for inclusion in their portfolios, which they will carry with them throughout the full sequence of courses in this program of study. Upon completion of this course, proficient students will be prepared for a career in audio/visual production or to transition to a postsecondary program for further study. Standards in this course are aligned with Tennessee State Standards for English Language Arts & Literacy in Technical Subjects and Tennessee State Standards in Mathematics. Applicable to Both Digital Arts & Design and A/V Production Programs. Prerequisite(s): A/V Production II.

Credit: 1 - Grade Level 11 – 12

Business Management & Administration:

Business Management:

Introduction to Business and Marketing:

Introduction to Business & Marketing is an introductory course designed to give students an overview of the Business Management and Administration, Marketing, and Finance career clusters. The course helps students prepare for the growing complexities of the business world by examining basic principles of business, marketing, and finance in addition to exploring key aspects of leadership, ethical and social responsibilities, and careers. Students' academic skills in communications, mathematics, and economics are reinforced with activities modeled in the context of business topics. Upon completion of this course, proficient students will be equipped with the foundational skills to succeed in any of the Business, Marketing, or Finance programs of study and will be prepared to make an informed decision regarding which pathways they would like to pursue in high school. Prerequisite(s): None.

Credit: 1 - Grade Level 9 – 10

Business Communications:

Business Communications is a course designed to develop students' effective oral and electronic business communications skills. This course develops skills in multiple methods of communications, including social media, as well as electronic publishing, design, layout, composition, and video conferencing. Upon completion of this course, proficient students will be able to demonstrate successful styles and methods for professional business communications using the proper tools to deliver effective publications and presentations. Prerequisite: Introduction to Business and Marketing.

Credit: 1 - Grade Level 10 – 11

Accounting I:

Accounting I is an essential course for students who wish to pursue careers in business and finance, or for those who wish to develop important skill sets related to financial literacy. Whether students aspire to be future business owners or work in finance with other companies, accounting skills are fundamental to success and applicable in many different fields. In this course, proficient Accounting students develop skills to analyze business transactions, journalize, post, and prepare worksheets and financial statements, and apply financial analysis to business processes. Additionally, students receive exposure to the ethical considerations that accounting professionals must face and the standards of practice governing their work, such as the GAAP (generally accepted accounting procedures) standards. Upon completion of this course, proficient students will be prepared to apply their accounting skills in more advanced Business and Finance courses, and ultimately pursue postsecondary training. Prerequisite: Introduction to Business and Marketing.

Credit: 1 - Grade Level 10 – 11

Business Management (NIC):

Business Management focuses on the development of the planning, organizing, leading, and controlling functions required for the production and delivery of goods and services. This applied knowledge course addresses the management role of utilizing the businesses' resources of employees, equipment, and capital to achieve an organization's goals. Students will participate in a continuing project throughout the course in which, individually or in teams, they will present recommendations to improve an existing business. Local business partnerships are encouraged to provide resources for faculty and students. Upon completion of this

course, proficient students will be able to complete a full review of an existing business and offer recommendations for improvement as would a management consultant. Prerequisite: Introduction to Business and Marketing.

Credit:1 - Grade Level 11 – 12

Business & Entrepreneurship Practicum:

Business & Entrepreneurship Practicum is a capstone course intended to provide students with the opportunity to apply the skills and knowledge learned in previous Business and Marketing courses within a simulated startup environment or authentic business setting. The course is structured to allow students the creativity to develop, launch, and market original business ideas. It is ideal for students who wish to pursue careers as future business owners or entrepreneurs. Practicum activities can take place around student-led startups under the supervision of the instructor, or in collaboration with a local business incubator. The standards in this course can also be used to promote student participation in a work-based learning (WBL) experience through an internship or other off-campus arrangement. Upon completion of the practicum, proficient students will be prepared to further develop their business ideas into viable ventures, or continue their study at the postsecondary level. Prerequisite(s): Two credits in a Business or Marketing program of study.

Credit:1 - Grade Level 11 - 12

Business Communications:

Business Communications is the Level 2 course for the Business Management, Office Management, and HR Management Programs of Study within the Business Management & Administration Career Cluster. The course description is provided within the Business Management & Administration Career Cluster.

Business Management (NIC):

Business Management can be found in the Business Management, Office Management, and Health Services Administration programs of study. The course description is provided within the Business Management & Administration Career Cluster.

Education & Training:

Teaching as a Profession (K-12):

Fundamentals of Education:

Fundamentals of Education is a foundational course in the Education and Training career cluster for students interested in learning more about becoming a school counselor, teacher, librarian, or speech- language pathologist. Upon completion of this course, proficient students will gain knowledge in the history of education in the United States, careers in education, and the influence of human development on learning. Artifacts will be created for inclusion in a portfolio, which will continue throughout the full sequence of courses. Standards in this course are aligned with Tennessee State Standards for English Language Arts & Literacy in Technical Subjects and Tennessee state standards in Biology I, Psychology, Sociology, U.S. Government and Civics, and

U.S. History and Geography, as well as National Standards for Family and Consumer Sciences Education, Second Edition.

Credit: 1 - Grade Level 9

Teaching as a Profession (TAP) I:

TAP I is an intermediate course for students interested in learning more about becoming a school counselor, teacher, librarian, or speech-language pathologist. This course covers the components of instruction, teaching strategies, types of assessments, student learning, special populations, and educational technology. Students will conduct observations of educators at work and create artifacts for a course portfolio, which will continue with them throughout the program of study. Upon completion of this course, proficient students will have a fundamental understanding of instructional strategies needed for becoming an educator. Standards in this course are aligned with Tennessee State Standards for English Language Arts & Literacy in Technical Subjects and Tennessee State Standards for Psychology and Sociology, as well as the National Standards for Family and Consumer Sciences Education, Second Edition. Students will spend no more than 2 to 3 ninety-minute class periods in a supervised field trip experience. Prerequisite(s) Fundamentals of Education.

Credit: 1 - Grade Level 10

Teaching as a Profession (TAP) II:

TAP II is an applied-knowledge course for students interested in learning more about becoming a teacher, school counselor, librarian, or speech-language pathologist. This course covers classroom management, concepts of higher order thinking, differentiating instruction, and strategies of effective classroom planning. Students in this course will demonstrate their skills in laboratory settings while building a course portfolio of work, which will carry with them throughout the program of study. Upon completion of this course, proficient students will be prepared to take the capstone TAP III course and further their studies at the postsecondary level. Standards in this course are aligned with Tennessee State Standards for English Language Arts & Literacy in Technical Subjects and Tennessee State Standards in Psychology and Sociology, as well as National Standards for Family and Consumer Sciences Education, Second Edition. Prerequisite(s): Teaching as a Profession I (TAP I).

Credit: 1 - Grade Level 11

Teaching as a Profession (TAP) III:

TAP III is a capstone course in the Education and Training career cluster for students interested in applying the knowledge and skills learned in previous courses toward becoming a teacher, school counselor, librarian, or speech-language pathologist. The course covers classroom professionalism, ethics, policies, communications, and career requirements in education fields. In addition, students will complete an internship and continue to create artifacts for their student portfolios. Upon completion of this course, proficient students will be prepared to pursue advanced training at a postsecondary institution. Standards in this course are aligned with Tennessee State Standards English Language Arts & Literacy in Technical Subjects and Tennessee State Standards in Psychology, as well as the National Standards for Family and Consumer Sciences Education, Second Edition. Prerequisite(s): Teaching as a Profession II (TAP II).

Credit: 1 - Grade Level 12

Early Childhood Careers:

Early Childhood Education Careers (ECEC) I:

ECEC I is a foundational course in the Education and Training career cluster intended to prepare students for careers as childcare providers, nannies, preschool teachers, and more. Course content covers the foundation of childhood development services, careers, provider responsibilities and aptitudes, and fundamentals of child development. Upon completion of this course, students will have created artifacts for inclusion in a course portfolio, which will continue with them throughout the program of study. Standards in this course are aligned with Tennessee State Standards for English Language Arts & Literacy in Technical Subjects and Tennessee State Standards for Psychology and Sociology, as well as the National Standards for Family and Consumer Sciences Education, Second Edition.

Credit: 1 – Grade Level 9

Early Childhood Education Careers (ECEC) II (NIC):

ECEC II is an intermediate course for students interested in learning more about becoming an early childhood teacher, nanny, or childcare provider. This course covers the components of curriculum planning, learning, screening and assessing, special populations, and educational technology. Students will observe educators in action, practice specific skills, and add personal work products to a course portfolio. Upon completion of this course, proficient students will be able to pursue more advanced coursework in the ECEC program of study. Standards in this course are aligned with Tennessee State Standards for English Language Arts & Literacy in Technical Subjects and Tennessee State Standards for Psychology and Sociology, as well as the National Standards for Family and Consumer Sciences Education, Second Edition. Prerequisite(s): Early Childhood Education Careers I.

Credit: 1 - Grade Level 10

Early Childhood Education Careers (ECEC) III:

An applied-knowledge course for students interested in becoming an early childhood teacher, nanny, or childcare provider. This course covers the components of the learning environment, planning age appropriate activities, using activities for learning, and developing communication skills. If available, students may participate in a work-based learning component of instruction and add work products to a course portfolio. Upon completion of this course, proficient students will be prepared to participate in the capstone *ECEC IV* course and/or continue their studies at the postsecondary level. Standards in this course are aligned with Tennessee State Standards for English Language Arts & Literacy in Technical Subjects and Tennessee State Standards for Psychology and Sociology, as well as the National Standards for Family and Consumer Sciences Education, Second Edition. Prerequisite(s): Early Childhood Education Careers II.

Credit: 1 - Grade Level 11

Early Childhood Education Careers (ECEC) IV (NIC):

ECEC IV is a capstone course for students who intend to pursue advanced training as an early childhood teacher, nanny, or childcare provider. The course standards cover understanding of the components of professionalism, policies, regulations, and teaching and learning. Students will participate in a work-based learning component of instruction and add work products to a course portfolio. Upon completion of this course, proficient students will be prepared to continue their studies at the postsecondary level. Standards in this course are aligned with Tennessee State Standards for English Language Arts & Literacy in Technical Subjects and

Tennessee State Standards for Psychology and Sociology, as well as the National Standards for Family and Consumer Sciences Education, Second Edition. Prerequisite(s): Early Childhood Education Careers III.
Credit: 1 - Grade Level 12

Finance:

Accounting:

Introduction to Business & Marketing:

Introduction to Business & Marketing is an introductory course designed to give students an overview of the Business Management and Administration, Marketing, and Finance career clusters. The course helps students prepare for the growing complexities of the business world by examining basic principles of business, marketing, and finance in addition to exploring key aspects of leadership, ethical and social responsibilities, and careers. Students' academic skills in communications, mathematics, and economics are reinforced with activities modeled in the context of business topics. Upon completion of this course, proficient students will be equipped with the foundational skills to succeed in any of the Business, Marketing, or Finance programs of study and will be prepared to make an informed decision regarding which pathways they would like to pursue in high school.

Credit: 1 - Grade Level 9 – 10

Accounting I:

Accounting I is an essential course for students who wish to pursue careers in business and finance, or for those who wish to develop important skill sets related to financial literacy. Whether students aspire to be future business owners or work in finance with other companies, accounting skills are fundamental to success and applicable in many different fields. In this course, proficient Accounting students develop skills to analyze business transactions, journalize, post, and prepare worksheets and financial statements, and apply financial analysis to business processes. Additionally, students receive exposure to the ethical considerations that accounting professionals must face and the standards of practice governing their work, such as the GAAP (generally accepted accounting procedures) standards. Upon completion of this course, proficient students will be prepared to apply their accounting skills in more advanced Business and Finance courses, and ultimately pursue postsecondary training. Prerequisite: Introduction to Business and Marketing.

Credit: 1 - Grade Level 10 – 11

Accounting II:

Accounting II is for students continuing with the Accounting program of study. Accounting II is an advanced study of concepts, principles, and techniques used by businesses to maintain electronic and manual financial records. This course expands on content explored in Accounting I to cover the accounting processes of a variety of different firms, including merchandising, manufacturing, and service-oriented businesses. Upon completion of this course, proficient students will gain in-depth knowledge of business accounting procedures and their applications to business operations. Upon completion of this course, students will be prepared for postsecondary study and advanced training in accounting or business. Additionally, completion of this course can lead to a work-based learning (WBL) experience as the program of study capstone. Prerequisite(s): Accounting I.

Credit: 1 - Grade Level 11 – 12

Banking and Finance:

Banking & Finance is designed for students continuing with the Banking and Finance program of study to challenge those students with real-world banking and financial situations through a partnership with a local financial institution, this business partnership should provide resources for faculty and students that include but are not limited to mentors, seminars, and hands-on experience with day-to-day banking operations. Upon completion of this course, proficient students will have a strong foundation for continued education in finance and business administration, specializing in occupations that support banking and financial institutions.

Prerequisite(s) Accounting I.

Credit: 1 - Grade Level 11 – 12

Health Science:

Health Science Education:

Health Science Education is the Level 1 Course for all programs of study within the Health Science Career Cluster.

Health Science Education is an introductory course designed to prepare students to pursue careers in the fields of biotechnology research, therapeutics, health informatics, diagnostics, and support services. Upon completion of this course, a proficient student will be able to identify careers in these fields, compare and contrast the features of healthcare systems, explain the legal and ethical ramifications of the healthcare setting, and begin to perform foundational healthcare skills. This course will serve as a strong foundation for all of the Health Science programs of study.

Credit: 1 - Grade Level 9

Diagnostic Services:

Diagnostic Medicine:

Diagnostic Medicine is a second or third level course designed to prepare students to pursue careers in the fields of radiology, medical laboratory, optometry, and other patient diagnostic procedures. Upon completion of this course, proficient students will be able to describe new and evolving diagnostic technologies, compare and contrast the features of healthcare systems, explain the legal and ethical ramifications of the healthcare setting, and begin to perform foundational healthcare skills. In addition, students will continue to add artifacts to a portfolio, which they will continue to build throughout the program of study. Prerequisite(s): Health Science Education.

Credit: 1 - Grade Level 10 – 11

Anatomy & Physiology:

Anatomy & Physiology is an upper level course designed to develop an understanding of the structures and functions of the human body, while relating those to knowledge and skills associated with pathophysiology. Upon completion of this course, proficient students will be able to (1) apply the gross anatomy from earlier courses to a deeper understanding of all body systems, (2) identify the organs and structures of the support and movement systems, (3) relate the structure and function of the communication, control, and integration system, and (4) demonstrate a professional, working understanding of the transportation, respiratory, excretory, and reproductive systems. Prerequisite(s): Biology I and Health Science Education.

Credit: 1-2 - Grade Level 10 – 12

Cardiovascular Services (NIC):

Cardiovascular Services is an applied course in the Diagnostic Services program of study intended to prepare students with an understanding of the roles and responsibilities of those seeking employment in the cardiovascular field of healthcare. Upon completion of this course, proficient students will have a thorough understanding of anatomy and physiology of the heart and be knowledgeable about both invasive and non-invasive cardiovascular procedures. Students will incorporate communication, goal setting, and information collection skills to be successful in the workplace. Prerequisite(s): Diagnostic Medicine.

Credit: 1 - Grade Level 11-12

Nursing Services:

Medical Therapeutics (NIC):

Medical Therapeutics is an applied course designed to prepare students to pursue careers in therapeutic services. Upon completion of this course, a proficient student will be able to identify careers in therapeutics services; assess, monitor, evaluate, and report patient/client health status; and identify the purpose and components of treatments. Prerequisite(s): Health Science Education.

Credit: 1 - Grade Level 10 – 11

Anatomy & Physiology:

Anatomy & Physiology is found in multiple programs of study in the Health Sciences Career Cluster. The course description is provided within the Diagnostic Services Cluster.

Therapeutic Services:

Medical Therapeutics (NIC):

Medical Therapeutics is found in multiple programs of study in the Health Sciences Career Cluster. The course description is provided within the Nursing Services cluster.

Capstone Course for Multiple Health Science Programs:

Clinical Internship:

Clinical Internship is a capstone course and work-based learning experience designed to provide students with real-world application of skills and knowledge obtained in a Prerequisite Health Science course. Prior to beginning work at a clinical site, students must be certified in Basic Life Support (BLS) Cardiopulmonary Resuscitation (CPR), and deemed competent in basic first aid, body mechanics, Standard Precaution guidelines, and confidentiality. Note: Students must be at least 16 years old to be enrolled in this course and able to provide their own transportation to and from clinical sites. Student to teacher ratio for this course is 15:1 in a clinical setting. Prerequisite(s): Diagnostic Medicine, Cardiovascular Services, Medical Therapeutics, Dental

Science, Pharmacological Science, Nutrition Science and Diet Therapy, Rehabilitation Careers, or Exercise Science.

Credit: 1 – 4 - Grade Level 11 – 12

Human Services:

Introduction to Human Studies:

Introduction to Human Studies is the Level 1 Course for the Human and Social Sciences and Dietetics and Nutrition programs of study within the Human Services Career Cluster. (Other courses available in the Human Services cluster follow this description.) Human Services is a foundational course for students interested in becoming a public advocate, social worker, dietician, nutritionist, counselor, or community volunteer. Upon completion of this course, a proficient student will understand human needs, overview of social services, career investigation, mental health, and communication. Artifacts will be created for inclusion in a portfolio, which will continue to build throughout the program of study. Standards in this course are aligned with Tennessee State Standards for English Language & Literacy in Technical Subjects, as well as the Tennessee State States for Psychology and Sociology, and the National Standards for Family and Consumer Sciences Education, Second Edition.

Credit: 1 - Grade Level 9

Human and Social Services:

Lifespan Development:

Lifespan Development builds basic knowledge in human growth and development. Upon completion of the course, proficient students will have knowledge of developmental theory, principles of growth, behavior of children from conception through adolescence, adult development and aging, and death and dying. Artifacts will be created for inclusion in a portfolio, which will continue to build throughout the program of study. Standards in the course are aligned with Tennessee State Standards for English Language Arts & Literacy in Technical Subjects, as well as Tennessee State Standards in Psychology and Sociology, and National Standards for Family and Consumer Sciences Education, Second Edition.

Credit: 1 - Grade Level 10

Family Studies (NIC):

Family Studies is an applied knowledge course that examines the diversity and evolving structure of the modern family. Upon completion of the course, proficient students will have knowledge of the demographic, historical, and social changes of interpersonal relationships, as well as parenting, and the effect of stressors on the family. Artifacts will be created for inclusion in a portfolio, which will continue to build throughout the program of study. Standards in the course are aligned with Tennessee State Standards for English Language Arts & Literacy in Technical Subjects, as well as Tennessee State Standards for Psychology, Sociology, U.S. Government and Civics, and U.S. History and Geography and the National Standards for Family and Consumer Sciences Education, Second Edition.

Credit: 1 - Grade Level 11

Dietetics and Nutrition:

Nutrition Across the Lifespan:

Nutrition Across the Lifespan is a course for students interested in learning more about becoming a dietitian, nutritionist, counselor, or pursuing a variety of scientific, health, or culinary arts professions. Upon completion of this course, proficient students will understand human anatomy and physiological systems, nutrition requirements, as well as social, cultural, and other impacts on food preparation and integrity.

Artifacts will be created for inclusion in a portfolio, which will continue to build throughout the program of study. Standards in this course are aligned with Tennessee State Standards for English Language Arts & Literacy in Technical Subjects, Tennessee State Standards for Biology I, Chemistry I, Human Anatomy & Physiology (A&P), and Scientific Research, and the National Standards for Family and Consumer Sciences Education, Second Edition. Prerequisite(s): Introduction to Human Studies.

Credit: 1 - Grade Level 10

Nutrition Science and Diet Therapy (NIC):

Nutrition Science and Diet Therapy is an applied knowledge course in nutrition for students interested in the role of nutrition in health and disease. Upon completion of this course, proficient students will be able to develop a nutrition care plan as part of the overall health care process, use methods for analyzing the nutritional health of a community, and understand the relationship of diet and nutrition to specific diseases. The course places emphasis on the role of diet as a contributor to disease and its role in the prevention and treatment of disease. Artifacts will be created for inclusion in a portfolio, which will continue to build throughout the program of study. Standards in this course are aligned to Tennessee State Standards for English Language Arts & Literacy in Technical Subjects, Tennessee State Standards for Mathematics, and Tennessee Biology I, Chemistry I, Human Anatomy & Physiology (A&P), and Scientific Research standards, as well as the National Standards for Family and Consumer Sciences Education, Second Edition. Prerequisite(s): Nutrition Across the Lifespan.

Credit: 1 - Grade Level 11

Cosmetology:

Cosmetology I:

Cosmetology I is the first level of cosmetology. It prepares students with work-related skills for advancement into the Design Principles of Cosmetology course. Content provides students the opportunity to acquire basic fundamental skills in both theory and practical applications of leadership and interpersonal skill development. Content stresses safety, environmental issues, and protection of the public and designers as integrated with principles of hair design, nail structure, and cosmetic procedures. Laboratory facilities and experiences simulate those found in the cosmetology industry.

Credit: 1 - Grade Level 9 - 10

Cosmetology II:

Cosmetology II is the second level of cosmetology which prepares students for work-related skills and advancement into the Chemistry of Cosmetology course. Content provides students the opportunity to acquire knowledge and skills in both theory and practical application. Advanced knowledge and skills in hair design, nail artistry, and cosmetic applications will be enhanced in a laboratory setting, which duplicates cosmetology industry standards. Upon completion and acquisition of 300 hours, students are eligible to take the Tennessee

Board of Cosmetology Shampoo examination for a Tennessee Shampoo Technician License. Prerequisite(s): Cosmetology I.

Credit: 1 – 2 - Grade Level 10 – 11

Information Technology:

Computer Science Foundations (NIC):

Computer Science Foundations is the Level 1 Course for all programs of study within the Information Technology Career Cluster. (Other courses available in the Information Technology cluster follow this description.) It is a course intended to provide students with exposure to various information technology occupations and pathways such as Networking Systems, Coding, Web Design, and Cybersecurity. As a result, students will complete all core standards, as well as standards in two of four focus areas. Upon completion of this course, proficient students will be able to describe various information technology (IT) occupations and professional organizations. Moreover, they will be able to demonstrate logical thought processes and discuss the social, legal, and ethical issues encountered in the IT profession. Depending on the focus area, proficient students will also demonstrate an understanding of electronics and basic digital theory; project management and teamwork; client relations; causes and prevention of Internet security breaches; and writing styles appropriate for web publication. Upon completion of the CSF course, students will be prepared to make an informed decision about which Information Technology program of study to pursue.

Credit: 1 - Grade Level 9

Coding:

Coding I:

Coding I is a course intended to teach students the basics of computer programming. The course places emphasis on practicing standard programming techniques and learning the logic tools and methods typically used by programmers to create simple computer applications. Upon completion of this course, proficient students will be able to solve problems by planning multistep procedures; write, analyze, review, and revise programs, converting detailed information from workflow charts and diagrams into coded instructions in a computer language; and will be able to troubleshoot/debug programs and software applications to correct malfunctions and ensure their proper execution. Standards in this course are aligned with the Tennessee State Standards for English Language Arts Standards and Literacy in Technical Subjects and Tennessee State Standards for Mathematics. Prerequisite(s): Algebra I and Computer Science Foundations.

Credit: 1 - Grade Level 10

Coding II (NIC):

Coding II challenges students to develop advanced skills in problem analysis, construction of algorithms, and computer implementation of algorithms as they work on programming projects of increased complexity. In so doing, they develop key skills of discernment and judgment as they must choose from among many languages, development environments, and strategies for the program life cycle. Course content is reinforced through numerous short- and long-term programming projects, accomplished both individually and in small groups. These projects are meant to hone the discipline and logical thinking skills necessary to craft error-free syntax for the writing and testing of programs. Upon completion of this course, proficient students will demonstrate an understanding of object-oriented programming language using high-level languages such as FOCUS, Python, or

SAS. Standards in this course are aligned with Tennessee State Standards for English Language Arts & Literacy in Technical Subjects. Prerequisite(s): Coding I.

Credit: 1 - Grade Level 11

Coding Practicum:

Coding Practicum is a capstone course intended to provide students with the opportunity to apply the skills and knowledge learned in previous *Coding* courses toward the completion of an in-depth project with fellow team members. Students who have progressed to this level in the program of study take on more responsibilities for producing independent work and managing processes involved in the planning, designing, refinement, and production of original software applications. The course is designed to allow students to choose their specific application of interest, be it the development of a mobile application (app), an animation package, a game or other educational tool, or any other approved program that requires coding and development skills. Upon completion of the practicum, proficient students will be prepared for postsecondary study and career advancement in programming and software development, and will be equipped to market their finished product should they choose. Prerequisite(s): Coding II.

Credit: 1 - Grade Level 11 – 12

Web Design:

Web Design Foundations:

Web Design Foundations is a course that prepares students with work-related web design skills for advancement into postsecondary education and industry. The course is intended to develop fundamental skills in both theory and practical application of the basic web design and development process, project management and teamwork, troubleshooting and problem solving, and interpersonal skill development. Laboratory facilities and experiences simulate those found in the web design and development industry; where interaction with a “client” is indicated in the standards, it is expected that students’ peers or the instructor may serve as mock clients in lieu of an actual relationship with an industry partner. Upon completion of this course, proficient students will be prepared for more advanced coursework in the Web Design program of study. Standards in this course are aligned with Tennessee State Standards for English Language Arts & Literacy in Technical Subjects and Tennessee State Standards in Mathematics. Prerequisite(s): Computer Science Foundations, Algebra I, & Geometry.

Credit: 1 - Grade Level 10

Website Development (NIC):

Website Development builds on the skills and knowledge gained in Web Design Foundations to further prepare students for success in the web design and development fields. Emphasis is placed on applying the design process toward projects of increasing sophistication, culminating in the production of a functional, static website. As students work toward this goal, they acquire key skills in coding, project management, basic troubleshooting and validation, and content development and analysis. Artifacts of the work completed in this course will be logged in a student portfolio demonstrating mastery of skills and knowledge. Upon completion of this course, proficient students will be prepared to pursue a variety of postsecondary programs in the computer sciences, sit for industry certification, or apply their skills in a capstone Web Design Practicum.

Prerequisite(s): Web Design Foundations.

Credit: 1 - Grade Level 11 – 12

Cybersecurity:

Cybersecurity I (NIC):

Cybersecurity I is a course intended to teach students the basic concepts of cybersecurity. The course places an emphasis on security integration, application of cybersecurity practices and devices, ethics, and best practices management. The fundamental skills in this course cover both in house and external threats to network security and design, how to enforce network level security policies, and how to safeguard an organization's information. Upon completion of this course, proficient students will demonstrate an understanding of cybersecurity concepts, identify fundamental principles of networking systems, understand network infrastructure and network security, and be able to demonstrate how to implement various aspects of security within a networking system. Prerequisite(s): Computer Science Foundations.

Credit: 1 - Grade Level 10

Cybersecurity II (NIC):

Cybersecurity II challenges students to develop advanced skills in concepts and terminology of cybersecurity. This course builds on previous concepts introduced in Cybersecurity I while expanding the content to include malware threats, cryptography, wireless technologies and organizational security. Upon completion of this course, proficient students will demonstrate an understanding of cybersecurity ethical decisions, malware threats, how to detect vulnerabilities, principles of cryptology, security techniques, contingency plan techniques, security analysis, risk management techniques, and advanced methods of cybersecurity. Prerequisite(s): Cybersecurity I.

Credit: 1 - Grade Level 11

Law, Public Safety, Corrections & Security:

Criminal Justice and Correctional Services:

Criminal Justice I:

Criminal Justice I is the first course of study and serves as a comprehensive survey of how the law enforcement, legal, and correctional systems interact with each other in the United States. Upon completion of this course, proficient students will understand the context of local, state, and federal laws, have investigative skills pertaining to basic crime scenes and incident documentation, and understand the importance of communications and professionalism in law enforcement.

Credit: 1 - Grade Level 9 - 10

Criminal Justice II:

Criminal Justice II is the second course of study. Upon completion of this course, proficient students will understand the impact of the constitution on law enforcement, law enforcement and police procedures, alcohol and beverage laws, sentencing, and the importance of communications and professionalism in law enforcement. Prerequisite(s): Criminal Justice I .

Credit: 1 - Grade Level 10 - 11

Criminal Justice III:

Criminal Justice III is the third course designed to equip students with the knowledge and skills to be successful in the sciences of criminal investigations. Students will learn terminology and investigation skills related to the crime scene, aspects of criminal behavior, and applications of the scientific inquiry to solve crimes. By utilizing the scientific inquiry method, students will obtain and analyze evidence through simulated crime scenes and evaluation of case studies. Upon completion of this course, proficient students will be able to identify careers forensic science and criminology, summarize the laws that govern the application of forensic science, and draw key connections between the history of the forensic science system and the modern legal system.

Prerequisite(s): Criminal Justice I and Criminal Justice II .

Credit: 1 - Grade Level 11-12

Fire Management Services:

Principles of Fire and Emergency Services:

Principles of Fire and Emergency Services is the introductory course in the Fire Management Services program of study. Students will be introduced to the challenging work of emergency responders in fire management services by learning regulations, health and safety protocol, communications, and operations. Upon completion of this course, if the teacher is a member of the local volunteer fire department, proficient students who are at least 16 years of age will have met the state requirements (T.C.A. 4-24-112) for minimum training of firefighters. Standards in this course are aligned with the National Fire Academy Fire and Emergency Services (FESHE) model.

Credit: 1 - Grade Level 9 - 10

Fire Science I:

Fire Science I is the third course in the Fire Management Services program of study. In this course, students will be prepared with technical knowledge and skills related to firefighter safety, fire behavior, building construction guidelines, and the use of firefighting equipment. Upon completion of this course, proficient students will be able to correctly demonstrate skills associated with ropes, ladders, and fire hoses in a non-live fire situation. Standards in this course are aligned with the NFPA Standards. Prerequisite(s): Principles of Fire and Emergency Services.

Credit: 1 - Grade Level 11 - 12

Fire Science II:

Fire Science II is the fourth and final course in the Fire Management Services program of study. Students in this course continue to acquire the skills and knowledge needed to pursue a career as a Firefighter I. Those students who complete this course will be prepared, after graduation, to further their instruction at a training facility. Upon completion of this course, proficient students will be able to correctly demonstrate skills associated with ventilation, water supply, fire hose and fire streams in a non-live fire situation, and safety with hazardous materials. Standards in this course are aligned with NFPA standards. Prerequisite(s): Fire Science I.

Credit: 1 - Grade Level 12

Marketing, Distribution & Logistics:

Introduction to Business & Marketing:

Introduction to Business and Marketing is the Level 1 Course in all programs of study in the Marketing Career Cluster. (Other courses available in the Marketing cluster follow this description.) It is an introductory course designed to give students an overview of the Business Management and Administration, Marketing, and Finance career clusters. The course helps students prepare for the growing complexities of the business world by examining basic principles of business, marketing, and finance in addition to exploring key aspects of leadership, ethical and social responsibilities, and careers. Students' academic skills in communications, mathematics, and economics are reinforced with activities modeled in the context of business topics. Upon completion of this course, proficient students will be equipped with the foundational skills to succeed in any of the Business, Marketing, or Finance programs of study and will be prepared to make an informed decision regarding which pathways they would like to pursue in high school.

Credit 1 - Grade Level 9 – 10

Marketing Management:

Marketing and Management I: Principles:

Marketing and Management I: Principles is the Level 2 Course for the Marketing Management and Entrepreneurship programs of study in the Marketing Career Cluster. It can also suffice as the Level 1 course in the Supply Chain Management program of study. The course focuses on the study of marketing concepts and their practical applications. Students will examine the risks and challenges that marketers face to establish a competitive edge in the sale of products and services. Topics covered include foundational marketing functions such as promotion, distribution, and selling, as well as coverage of economics fundamentals, international marketing, and career development. Upon completion of this course, proficient students will understand the economic principles, the marketing mix, and product development and selling strategies.

Credit 1 - Grade Level 10 – 11

Social Media Marketing and Analytics:

Social Media Marketing & Analytics is a study of concepts and principles used in social media marketing. Students will examine the uses, marketing strategies and data generated by social media marketing. Subject matter includes foundational social media knowledge, social media marketing strategies, communication and ethical responsibilities. Prerequisite(s): Marketing and Management I: Principles.

Credit: 1 – Grade Level 11-12

Advertising and Public Relations:

Advertising and Public Relations is an applied knowledge course focusing on the concepts and strategies associated with promoting products, services, ideas, and events. This course addresses skills essential to the creative side of the industry and explores consumer behavior patterns and motivations for buying. Upon completion of this course, proficient students will be able to demonstrate understanding in fundamental advertising and public relations concepts by creating an electronic portfolio of representative course projects. Prerequisite(s): Marketing & Management I: Principles.

Credit 1 - Grade Level 11 – 12

Supply Chain Management:

Foundations of Supply Chain Management (NIC):

Foundations of Supply Chain Management exposes students to careers and businesses involved in the planning, management, and movement of people, materials, and products by road, air, rail, pipeline, and water. As an introduction to this important and globally evolving field, this course covers the basic principles of logistics, reviews the history and development of distribution networks, and examines how they function within the dynamics of the supply chain. Upon completion of this course, proficient students will explore career options; demonstrate an understanding of the historical, current, and future significance of supply chain industries; and plan for the effective and efficient flow of goods and services. This course will require extensive Microsoft Office applications including but not limited to PowerPoint creation; use of templates; spreadsheet manipulations; and designing of charts, graphs, formulas, and tables.

Credit: 1 - Grade Level: 9-10

STEM:

Principles of Engineering and Technology (NIC):

Principles of Engineering and Technology is the Level 1 Course for the Engineering and Technology programs of study in the STEM Career Cluster. (Other courses available in the STEM cluster follow this description.) It is a foundational course in the STEM cluster for students interested in learning more about careers in engineering and technology. This course covers basic skills required for engineering and technology fields of study. Upon completion of this course, proficient students are able to identify and explain the steps in the engineering design process. They can evaluate an existing engineering design, use fundamental sketching and engineering drawing techniques, complete simple design projects using the engineering design process, and effectively communicate design solutions to others. Standards in this course are aligned with Tennessee State Standards for English Language Arts & Literacy in Technical Subjects and Tennessee State Standards in Mathematics.

Credit: 1 - Grade Level 9

Engineering:

Engineering Design I:

Engineering Design I is a fundamental course in the STEM cluster for students interested in developing their skills in preparation for careers in engineering and technology. The course covers essential knowledge, skills, and concepts required for postsecondary engineering and technology fields of study. Upon completion of this course, proficient students are able to describe various engineering disciplines, as well as admissions requirements for postsecondary engineering and engineering technology programs in Tennessee. They will also be able to identify simple and complex machines; calculate various ratios related to mechanisms; explain fundamental concepts related to energy; understand Ohm's Law; follow the steps in the engineering design process to complete a team project; and effectively communicate design solutions to others. Standards in this course are aligned with Tennessee State Standards in English Language Arts & Literacy in Technical Subjects and Tennessee State Standards in Mathematics. Note: Students are expected to use engineering notebooks to document procedures, design ideas, and other notes for all projects throughout the course. Prerequisite(s): Principles of Engineering & Technology, Algebra I, and Physical Science or Biology.

Credit: 1 - Grade Level 10

Engineering Design II (NIC):

Engineering Design II is an applied course in the STEM career cluster for students interested in further developing their skills as future engineers. This course covers knowledge, skills, and concepts required for postsecondary engineering and technology fields of study. Upon completion of this course, proficient students are able to explain the differences between scientists and engineers, understand the importance of ethical practices in engineering and technology, identify components of control systems, describe differences between laws related to fluid power systems, explain why material and mechanical properties are important to design, create simple free body diagrams, use measurement devices employed in engineering, conduct basic engineering economic analysis, follow the steps in the engineering design process to complete a team project, and effectively communicate design solutions to others. Standards in this course are aligned with Tennessee State Standards in English Language Arts & Literacy in Technical Subjects and Tennessee State Standards in Mathematics. Prerequisite(s): Engineering Design I and Biology or Chemistry.

Credit: 1 - Grade Level 11

Core Academic & Elective Courses:

Driver Education:

Driver Education:

Driver Education is a class available to students who are at least fifteen years of age prior to beginning the course in grades 10-12. The instructional phases consist of classroom, driving range, and on-street driving instruction. The course will be taught as a one-unit course with sufficient instructional contact time with driver education teacher and the inclusion of safety education. Learner's permits are not required but are highly recommended so as to allow parents to work with the student to coincide with the drive time that they will receive in class to prepare for the driving test. Suggested class size: 22 students first semester; 22 students second semester. All students must meet state requirements for attendance and academic progress. (Prerequisite: 15 years of age.)

Fine Arts:

MUSIC:

Development of Rock & Roll:

Development of Rock & Roll is designed as a survey of rock and roll music, from its very roots to the music today. Students will develop knowledge and understanding of the musical elements of rock and roll and the major artists within each period. Students will identify the different styles that make up each period and study the social and cultural connections in the creation of rock and roll. Class participation, attendance, maintaining a journal, and completion of all assignments is required. *Maximum credit: one unit.*

Band:

Band provides students with the opportunity of continuing the study and performance of music emphasizing traditional band literature and selected orchestral transcriptions. The course focuses on the study of the elements of music and the development of individual and group performance skills. Individual practice, after-school practice and rehearsal sessions, and performances are required. Performance opportunities include marching band, concert band, invitational and audition clinics, festivals, and contests. (Prerequisites: Previous experience and teacher recommendation) *Can be taken for multiple credits.*

Band: Concert, Symphonic or Wind Ensemble:

The Concert Band, Symphonic Band, and Wind Ensemble are musical groups concentrating their skills on musical performance for advanced woodwind, brass, and percussion performance. These bands play a variety of styles and types of music selected from the standard high school band repertoire. The goal of these courses is to develop proficiency on a chosen instrument through rehearsals, lessons and various performances. These bands will have several performance opportunities throughout the semester. Through these classes the students will improve instrumental skills, elevate performance skills as well as develop an understanding of the performance process. All National Music Standards are addressed and the highest expectations of musicianship and behavior are expected. Rehearsals and performances during the school day, before and after the regular school day, as well as on non-school days, may be required. (Prerequisite: Previous study of a band instrument and teacher recommendation) *Can be taken for multiple credits.*

Instrument Ensemble:

Instrument Ensemble provides students with the opportunity to continue the study and performance of music literature relative to a specific ensemble, such as Jazz, Percussion, Brass, or Woodwind. The course focuses on advanced individual and group performance skills relative to the selected medium. Individual practice, after-school practice and rehearsal sessions, and performances are required. (Prerequisite: Teacher recommendation) *Can be taken for multiple credits.*

Beginning Orchestra:

Beginning Orchestra is designed to give students the opportunity to learn to play one of the following string instruments: Violin, Viola, Cello or Bass. Students will be exposed to the four (4) string instruments listed above and through teacher guidance will be allowed to learn the instrument of their choice or the instrument for which the student is best suited. Students will learn the basic elements of music as well as the proper way to play their musical instrument. (Prerequisite: Teacher recommendation)

Orchestra:

Orchestra provides students with the opportunity to continue the study and performance of music emphasizing styles from several historical periods. The course focuses on the study of the elements of music and the development of performance skills for individuals and ensembles. Individual practice, after-school practice and rehearsal sessions, and performances are required. Performance opportunities include string orchestra, full

orchestra, invitational and audition clinics, festivals, and contests. (Prerequisites: Previous experience and teacher recommendation) *Can be taken for multiple credits.*

Female Chorus:

Female Chorus is for female choral students to study and perform a wide variety of sacred and secular choral literature of easy to medium difficulty from all historical and performance styles. Emphasis is placed on the development of individual and ensemble skills in vocal production, tone quality, diction, intonation, balance and blend, sight-reading and music reading, and ensemble esprit de corps. Previous choral experience is not a prerequisite but would be beneficial. Performances and after-school rehearsals are required. *Can be taken for multiple credits.*

Male Chorus:

Male Chorus is for male choral students to study and perform a wide variety of sacred and secular choral literature of easy to medium difficulty from all historical and performance styles. Emphasis is on vocal production and basic choral techniques, intonation, phrasing, sight-reading and ear training, general musicianship skills, understanding and attitude and the responsibility of individuals to the group. There are no prerequisites, although some minimum requirements may be recommended by the teacher. Performances and after-school rehearsals are required. *Can be taken for multiple credits.*

Advanced Mixed Chorus/Vocal Music II:

Vocal Music II is for students who wish to study and perform a wide variety of medium to difficult sacred and secular choral literature in a variety of styles and historical periods. Emphasis will be placed on an advanced degree of musicianship and increased performance skills individually and in ensemble. The mixed chorus is for students who elect and are selected by audition to be in the group. Previous choral music experience is usually beneficial but not a prerequisite. Performances and after-school rehearsals are required. *Can be taken for multiple credits. Prerequisite: teacher recommendation.*

Vocal Music III – Choral Ensemble:

Choral Ensemble consists of students with previous choral experience selected by audition. The nature of the group may vary according to the discretion of the director and the needs of the school music program. Examples are: Chamber Choir, Madrigal Singers, Pop Ensemble, and Show Choir. Emphasis is placed on an advanced degree of musicianship, increased harmonic and rhythmic reading skills, and increased performance skills. Opportunities are provided for performance in school and community. Performances and after-school rehearsals are required. Choreography and/or costumes may be required by the teacher for some ensembles. This is an auditioned group. *Can be taken for multiple credits.*

Advanced Placement (AP) Music Theory:

The goal of the AP Music Theory course is to develop a student's ability to recognize, understand, and describe the basic materials and processes of music that are heard or presented in a score. The achievement of these goals will be approached by initially addressing fundamental aural, analytical, and compositional skills using both listening and written exercises. Building on this foundation, the course will progress to include more creative tasks, such as the harmonization of a melody by selecting appropriate chords, composing a musical bass line to

provide two-voice counterpoint, or the realization of figured-bass notation. Part-writing, sight-reading, and sight-singing are essential components of this process. The Advanced Placement Exam is the culmination of this course. (Prerequisite: Teacher recommendation)

Musical Theatre:

Musical Theatre offers students the opportunity to study and perform in this genre. This is a production-based course designed to provide students with opportunities to participate in the varied aspects of a musical theatre production. The course combines practical vocal training including diction and tone quality as well as the development of students as actors by instilling work ethic, time management and the importance of teamwork. Students will study the evolution of musical theatre and develop an appreciation for this uniquely American art form. (Elective credit) *Can be taken for multiple credits.*

Honors Courses for Band, Orchestra and Chorus:

Honors courses are offered in both instrumental and vocal music. Students that enroll in an honors course will be required to complete all of the requirements for their chosen area of study (band, orchestra or chorus) as well as the honors course requirements listed in the Knox County Schools Honors Course Credit Contract for instrumental and vocal music. Honors courses require a yearlong commitment. Students must be enrolled in the course for both the fall and spring semesters and must complete all of the requirements above before honors credit will be given for the course. (Prerequisites: Previous band, orchestra or chorus experience and teacher recommendation).

THEATER:

Theatre Arts I:

Theatre Arts I is a one-unit course for students who have an interest in drama and wish to learn the history of theatre and improve their abilities in communicating and appearing before a group. The curriculum includes exercises in pantomime, improvisation, basic stage direction, play reading, theatre history, stagecraft, basic acting skills, and oral interpretation. (Elective credit)

Advanced Theatre Arts:

Advanced Theatre Arts is for students who have completed Theatre Arts I and who wish to expand their interpretative skills and knowledge of theatre. The curriculum includes further study of oral and dramatic interpretation of prose and poetry. An interview with the teacher and/or auditions for admission may be required. (Elective credit) (Prerequisite: Theatre Arts I) *Can be taken for multiple credits.*

Advanced Theatre Arts Stagecraft:

Stagecraft is a one-unit course for students who have an interest in developing an overall understanding of the aspects of theatre production. Students will develop skills in lighting, sound, set construction, set painting, props, program/poster design, costuming, makeup, and publicity. (Elective credit) *Can be taken for multiple credits.*

Advanced Theatre Arts Production:

Production is a one-unit course that focuses on the study and application of technical theatre including set design, set building, lighting, sound, props, stage managing, costume design, makeup, publicity, box office, and house management. A requirement of this course includes preparation in a show, which will require time commitment outside of class. (Elective credit) (Prerequisite: Teacher recommendation and Theatre Arts I) *Can be taken for multiple credits.*

VISUAL ARTS:

Visual Art I (General):

Art I is a one-unit survey course designed for students in grades 9-12 who are enrolling in a high school art course for the first time. Provides a variety of experiences that build on the concepts, techniques, and use of media introduced in the middle school program. Generally laboratory in nature, Art I explores and gives experience in two-dimensional (drawing, painting, printmaking) and three-dimensional (sculpture, ceramics, textiles) formats and integrates art history, design principles, and aesthetic criticism and response. *This course is a prerequisite for all other advanced art coursework.*

Advanced Art:

Advanced Art is for students who have successfully completed Art I and, who, in the judgment of the instructor, show a sufficient level of interest and/or ability that would warrant continued study in Visual Art. Based on approved curriculum guides, the program of study may be divided into the following topics or areas of concentration: Art History, Sculpture, Painting, Ceramics, Drawing, Printmaking, Paper, or Photo. General Advanced Art will study a combination of two-dimensional and three-dimensional media. This assures that students who continue beyond the first year will grow in their artistic development. *Students may continue in Advanced Art on a space-available basis and may repeat Advanced Art up to seven times at the determination of the instructor.* (Prerequisite: Art I and teacher recommendation.)

AP Art Portfolios: General Description:

The AP Studio Art portfolios are designed for students who are seriously interested in the practical experience of art. AP Studio Art is not based on a written examination; instead, students submit portfolios for evaluation at the end of the school year.

AP Studio Art: Drawing Portfolio:

The Advanced Placement Drawing Portfolio is designed to include a very broad interpretation of drawing issues. Many types of painting, printmaking, studies for sculpture, and some forms of design, as well as abstract and observational works, could qualify as addressing drawing issues. The range of marks used to make drawings, the arrangement of those marks, and the materials used to make the marks are endless. Works of photography, videotapes and computer-generated works may not be submitted for the drawing portfolio.

AP Studio Art 3-D: Art & Design:

AP Studio Art 3-D is a portfolio course intended to address a broad interpretation of sculptural issues in depth and space. These may include mass, volume, form, plane, light, and texture. Such elements and concepts may

be articulated through additive, subtractive, and/ or fabrication processes. A variety of approaches to representation, abstraction, and expression may be part of the student's portfolio. These might include traditional sculpture, architectural models, apparel, ceramics, three-dimensional fiber arts or metal work, among others.

AP Studio Art 2-D: Art & Design:

AP Studio Art 2-D is intended to address a very broad interpretation of two-dimensional (2D) design issues. This type of design involves purposeful decision-making about how to use the elements and principles of art in an integrative way. For this portfolio, students are asked to demonstrate proficiency in 2D design using a variety of art forms. These could include, but are not limited to, graphic design, typography, digital imaging, photography, collage, fabric design, weaving, illustration, painting, printmaking, etc. A variety of approaches to representation, abstraction, and expression may be part of the student's portfolio.

JROTC (Junior Reserve Officers Training Corps):

NOTE: No substitutions may be made.

General Description:

J.R.O.T.C. is a joint program provided by the Knox County School System in partnership with the United States Department of Defense. Currently, there are two Air Force, two Army, and five Navy programs in Knox County. J.R.O.T.C. programs vary according to differences among Air Force, Army, and Navy regulations. However, all services present a curriculum designed to help each student achieve the following goals: (1) Develop habits of orderliness, precision, and respect for authority in our society, (2) Instill patriotism, (3) Develop a high degree of personal honor, self-reliance, individual discipline, and leadership, (4) Instill pride, self-respect, confidence, and a desire to do one's best in any endeavor, and (5) Promote a basic understanding of national security requirements and the role of the armed service in the national defense structure. Each student must successfully complete an introductory phase before advancing to the next level of the program.

Air Force JROTC:

Air Force Junior Reserve Officer Training Corps (AFJROTC) is a program designed to develop citizens of character dedicated to serving their nation and community. Each AFJROTC class contains three components: aerospace science, leadership education, and a wellness program. Aerospace Science courses develop a sense of service, while focusing on science and technology. Leadership education courses emphasize citizenship and character education. Wellness is an official and integral part of the Air Force Junior ROTC program. It motivates cadets to pursue healthy, active lifestyles throughout their adult lives. Each semester of study contains an aerospace science, leadership and wellness component in a 40/40/20% ratio respectively.

The course titles JROTC I – IX refer to a cadet's current semester in the program with associated curriculum selected from the following AFJROTC course offerings.

Language Arts:

To satisfy graduation requirements, each student must complete four courses of Language Arts: English 1, English 2, English 3, and English 4. Each of these core courses addresses four curriculum content strands: Language, Reading, Writing, and Speaking and Listening.

All Honors courses should substantially exceed the content standards, learning expectations, and performance indicators approved by the State Board of Education. Additionally, an honors course shall include a minimum of five of the nine components from the Tennessee Department of Education Framework of Standards for Honors Courses.

English I:

In English 1, students will build upon the skills developed in the middle school English Language Arts. The focus is on close reading of informational and literary texts of appropriate grade level complexity. Based upon their reading, the students will engage in class discussion and written assignments to present analysis to develop an argument, or to write real or imagined narrative. While reading and writing, students will analyze the author's point of view, evidence, assumptions, and style. Within their own writing, students will develop focus, organization, style, and grammatical fluency. Vocabulary study will focus on morphology, etymology, and context, and the words will come from the texts that the students read. Assessment will focus on the students' ability to read appropriately complex text and to cite evidence to support analysis or claims from that text. Language skills will be assessed in the context of their writing, as well as through authentic workplace tasks, such as editing a draft. *This course may be combined with World History/Geography.*

English I Honors:

English I Honors consists of the English I standards. However, the curriculum modules reflect the Tennessee Department of Education framework for extension.

English I Honors Combined:

A yearlong course, this English I Honors Combined is typically combined with an honors social studies class. It is a reading and writing intensive course with an emphasis on an in-depth study of composition, research, and literacy analysis. The focus is on the close reading of informational and literary texts selected based on overlapping concepts and historical periods. Based upon their reading, students will engage in class discussion and written assignments to present analysis, to develop an argument, or to write a real or imagined narrative. While reading and writing, students will analyze the author's point of view, evidence, assumptions, and style. Within their writing, students will develop focus, organization, style, and grammatical fluency. Vocabulary study consists of morphology, etymology, and context, and the words will come from the texts that the students read. Assessment will focus on the students' ability to read appropriately complex text and cite evidence to support analysis or claims from that text. Language skills are assessed in the context of their writing, as well as through authentic workplace tasks, such as editing a draft. English 1 Honors, students build upon the skills developed in middle school English Language Arts. Students in an English 1 Honors course engage with text at the upper end of the reading band for the grade level. They also engage in deeper levels of analysis with more rigorous expectations for the thoroughness of the evidence considered in developing analyses and arguments.

English 2:

In English 2, students build upon the skills developed in English 1. The focus is on the close reading of informational and literary texts of appropriate grade level complexity. Based upon their reading, the students engage in class discussion and written assignments to present analysis to develop an argument, or to write a real or imagined narrative. While reading and writing, students analyze the author’s point of view, evidence, assumptions, and style. Within their own writing, students will develop focus, organization, style, and grammatical fluency. Vocabulary study focuses on morphology, etymology, and context, and the words come from the texts that students read. Assessment will focus on the students’ ability to read appropriately complex text and to cite evidence to support analysis or claims from that text. Language skills are assessed in the context of their writing, as well as through authentic workplace tasks, such as editing a draft.

English 2 Honors:

English 2 Honors consists of the English 2 standards. However, the curriculum modules reflect the Tennessee Department of Education framework for extension.

English 2 Honors Combined:

A yearlong course, English 2 Honors Combined is typically combined with an honors or Advanced Placement® social studies class. Previous experience in honors is not a prerequisite; however, students who make the transition from grade level to honors may experience a significant difference in the level of text and the expectations for fluency in writing. It is reading and writing intensive with an emphasis on an in-depth study of composition, research, and literary analysis. The focus is on the close reading of informational and literary texts selected for overlapping concepts and historical periods. Based upon their reading, the students will engage in class discussion and written assignments to present analysis, to develop an argument, or to write a real or imagined narrative. While reading and writing, students will analyze the author’s point of view, evidence, assumptions, and style. Within their own writing, students will develop focus, organization, style, and grammatical fluency. Vocabulary study focuses on morphology, etymology, and context, and the words will come from the texts that the students read. Assessment centers on the students’ ability to read appropriately complex text and to cite evidence to support analysis or claims from that text. Language skills will be assessed in the context of their writing, as well as through authentic workplace tasks, such as editing a draft. Students in an English 2 Honors course engage with text at the upper end of the reading band for the grade level. They participate in deeper levels of analysis with more rigorous expectations for the thoroughness of the evidence considered in developing analyses and arguments.

English 3:

Students in English 3 work on college and career-ready reading and writing skills while also reading and analyzing foundational works in American literature. Through analyzing how multiple authors present similar subjects, students learn about varying perspectives, bias, and audience. They also become proficient at identifying and evaluation reasoning within documents of historical, literary, information, and legal natures. Throughout the course, they will conduct short and long-term research projects, following both their lines of inquiry and some teacher-directed lines of inquiry. While the foundational skills for composition should be established in the earlier grades, students in English 3 work to refine their writing style in fluency and sophistication.

English 4:

Students in English 4 work on college and career-ready reading and writing skills while also reading and analyzing foundational works in world literature. Through analyzing how multiple authors present similar subjects, students learn about varying perspectives, bias, and audience. They also become proficient at identifying and evaluation reasoning within documents of historical, literary, information, and legal natures. Throughout the course, they will conduct short and long-term research projects, following both their lines of inquiry and some teacher-directed lines of inquiry. While the foundational skills for composition should be established in the earlier grades, students in English 4 work to refine their writing style in fluency and sophistication. They also develop their speaking and listening skills through speeches and presentations.

Advanced Placement (AP) Language and Composition:

AP Language and Composition is a course for students who have successfully completed Honors English 2 or have demonstrated competency in composition and rhetorical skills. The curriculum emphasizes analysis, research, and composition as students become skilled readers of prose written in a variety of periods, disciplines, and rhetorical contexts. Students will be expected to think critically and analytically and be able to express themselves effectively. College level outside reading is required. The course is designed to help develop the cognitive and communicative skills necessary to do well on the AP English Language and Composition Test, the culmination of the course.

Advanced Placement (AP) Language and Composition Combined:

AP Language and Composition Combined is yearlong course for students who have demonstrated competency in composition, rhetorical, and literary analysis skills. The curriculum includes a critical survey of various literary genres, a study of literary style and technique, and written literary analysis. Students are expected to think critically and analytically and express themselves effectively. The course is designed to develop the cognitive and communicative skills necessary to do well on the AP English Literature and/or the AP Language Composition exams. This course is *usually* combined with AP US History.

Advanced Placement (AP) Literature and Composition:

AP Literature and Composition is a course for students who have successfully completed Advanced Placement English 3 or demonstrated competency in composition and literary analysis skills. Students must be highly motivated and have above average writing and analytical skills. The curriculum is an in-depth study of American, British, and World literature with expectations commensurate with the first year of college English. Outside readings are required. The course is designed to help develop the cognitive and communicative skills necessary to do well on the AP English Literature and Composition Test, the culmination of the course.

Advanced Placement (AP) Literature and Composition Combined:

AP Literature and Composition is yearlong course for students who have demonstrated competency in composition, rhetorical, and literary analysis skills. The curriculum includes a critical survey of various literary genres, a study of literary style and technique, and written literary analysis. Students are expected to think critically and analytically and express themselves effectively. The course is designed to help develop the cognitive and communicative skills necessary to do well on the AP English Literature exam and/or the AP Language Composition exams and is *usually* combined with AP US History.

Advanced Placement (AP) Capstone:

The AP Capstone designation is built on the foundation of two courses AP Seminar and AP Research. Successful completion of both courses can replace the English 4 requirement.

Advanced Placement (AP) Seminar:

AP Seminar involves intensive research and synthesis of self-selected topics. Students engage in research to analyze real-world problems and to cultivate the skills needed for successful college writing. Teams of students work to analyze and synthesize their findings and present their research to the class. The students explore scientific, economic, and political topics from a variety of viewpoints and broaden their understanding of global issues.

Advanced Placement (AP) Research:

In AP Research, students further the skills they obtained in the AP Seminar course and develop a research methodology while employing ethical research practices. Students work on a year-long research project, document their processes, and curate artifacts as they develop a scholarly work portfolio. The final project is an academic paper of 4000–5000 words (accompanied by a performance or exhibition of product where applicable) and a presentation of their findings with an oral defense. This course can only be taken during the student’s final year of high school.

Language Arts Elective Credits:

Journalism 1:

In Journalism 1, students will have the opportunity to improve the skills necessary in journalistic writing for both print and broadcast media. Curriculum includes the history and elements of journalistic style and the application of journalistic techniques to the development of a publication. Students who wish to take this course must be highly motivated, work well with peers, and be responsible in following through with assignments as the work culminates in a publication. Prerequisites: Students may have to demonstrate ability to write well; may be required to apply for this course; and may be required to receive teacher recommendation. Publications include the newspaper, the literary magazine, and/or the annual.

Journalism 2:

In Journalism 2, students continue to explore and refine the skills necessary for journalistic writing and digital publishing. In addition to being actively engaged in communication skills, students explore the topics of ethics in journalism particularly paying close attention to plagiarism. Prerequisites: Successful completion of Journalism 1. Additionally, students may have to demonstrate ability to write well; may be required to apply for this course; and may be required to receive teacher recommendation. Publications include the newspaper, the literary magazine, and/or the annual. *Can be taken for multiple credits.*

Journalism 3:

Journalism 3 provides more in-depth and hands-on production work in journalism. Activities in this class include production techniques for newspaper, radio, and television. Prerequisites: Successful completion of Journalism 2. Additionally, students may have to demonstrate ability to write well; may be required to apply for

this course; and may be required to receive teacher recommendation. Publications include the newspaper, the literary magazine, and/or the annual. *Can be taken for multiple credits.*

Journalism 4:

Journalism 4 allows students more hands-on production training in various areas of journalism. Activities in this class should include production techniques for newspaper, radio, and television including online publications. Prerequisites: Successful completion of Journalism 3. Students may have to demonstrate ability to write well; may be required to apply for this course; and may be required to receive teacher recommendation. Publications include the newspaper, the literary magazine, and/or the annual. *Can be taken for multiple credits.*

Genre Literature:

In Genre Literature, students will be given the opportunity to develop deeper thematic critical reading skills through additional reading experiences of two or more literary genres. Students will explore the thematic elements and various styles and plot elements of various literary genres, including Ancient Literature, Appalachian and Southern Literature, Modern Literature, Mystery and Suspense Literature, Mythology, Science Fiction and Shakespeare

Creative Writing:

In Creative Writing, students will be given the opportunity to develop a creative outlet through additional writing experiences in fiction and nonfiction. Creative writing allows students to promote self-expression, to explore various writing styles, and to strive for variety in diction, sentence structure, and format.

Advanced Creative Writing:

Students will continue to pursue the art of creative writing, concentrating especially on poetry, short stories, non-fiction, and screenwriting in Advanced Creative Writing. Works of great authors are examined and modeled, with a view to enhancing the students' own work. The class is conducted as a workshop with both teacher- and peer-conferencing, an important part of the process, the end result being a significant portfolio of student work.

Speech and Communication:

Students will explore a variety of speaking situations (informative, small group, persuasive, and special event speaking) and different types of communication (interpersonal, small group, and public communication) using a variety of digital media (text, audio, and visual) through formal and informal settings while taking Speech and Communication. The student will develop the skills to generate ideas, research topics, organize information, and create and evaluate oral presentations.

English Language Learners (ELL):

ELL is an English course designed for students who are classified as active ELLs. Based on the student's level of English proficiency as determined by a standardized, state-approved ESL Test, students are provided English instruction specifically designed for second language learners. This course is available in grades 9-12. Students may substitute ESL for up to two units of English credit. Additional credit earned in ELL may be used as

elective credit at the same rate as other courses in the student's school. Only a Certified ESL teacher can teach this course.

Lifetime Wellness & Physical Education:

Note: One unit of Lifetime Wellness is required for graduation and is usually taken during a student's 9th grade year.

Note: Students must complete one-half (½) credit in Physical Education. This requirement may be met by substituting a documented and equivalent time of physical activity in marching band, JROTC, cheerleading, interscholastic athletics, school sponsored intramural athletics, and other areas approved by the local board of education.

The 1/2 credit Physical Education requirement may be satisfied by one of the following:

One Physical Education elective course (1 credit) 65 hours of documented physical activity outside of the school day in other school-related areas such as:

- Marching Band;
- JROTC;
- TSSAA approved sports;
- Swim Team
- Cheerleading
- Dance Team
- School-related club/activity approved by the Supervisor of Physical Education, Health and Wellness.

The 65 hours must be completed during one school/academic year, which includes the summer prior to the beginning of a school year. Upon completion of the 65 hours of physical activity, credit in Activity PE with a grade of 'Pass' will be recorded on the student transcript. Documentation of hours is the responsibility of the teacher/coach supervising the activity.

Physical Education 1:

Physical Education 1 is a one-unit elective course. The goal of Physical Education 1 is to provide a variety of activities through four strands: Health Related Fitness; Individual Sports; Team Sports; and Basic Gymnastic Fundamentals. Each unit within the strand will be designed to teach the basic skills, rules and strategies necessary to understand and perform a variety of activities.

Advanced Physical Education:

Advanced Physical Education is a one-unit elective course. The goal of Advanced Physical Education is to provide progressive skills, techniques and strategies in various activities. Prerequisite: Physical Education 1. *Can be taken for multiple credits.*

Lifetime Wellness:

Lifetime Wellness is a one-unit course required for graduation. The goal of Lifetime Wellness is for students to learn a lifelong process of positive lifestyle management that seeks to integrate the emotional, social, intellectual, and physical dimensions of self for a longer, more productive and higher quality of life. The course consists of the following state standards: Disease Prevention and Control; Mental Health; Nutrition; Physical Fitness and Related Skills; Safety and First Aid; Sexuality and Family Life; and Substance Use/Abuse.

Family Life Education, HIV/AIDS Education, and Human Trafficking are included in the Wellness standards. These topics are mandated by State Law (Public Charter No. 565). Parents have the option to have their child exempted and placed in an alternate learning environment during the Family Life instruction. A parent may complete and return the “opt out” form sent home with each student before instruction begins. Parents are welcome to review the Family Life and HIV/AIDS education curriculum and materials by contacting their child’s teacher at the school. Knox County Schools and the Knox County Health Department have employed a School Health Educator, whose primary responsibility is to deliver the Family Life curriculum in collaboration with the Health and Wellness teachers. Only Knox County Schools' staff and Knox County Health Department personnel will deliver this important and delicate curricular material. Family Life education is taught in 6th, 8th grades and Lifetime Wellness in high school.

Aerobics:

Aerobics is a one-unit elective course emphasizing the importance in improving and maintaining a healthier cardiovascular system. Skills taught in order to achieve this goal include muscular endurance, muscular strength, cardiovascular endurance, flexibility and body composition. Regular aerobic workouts through the participation in aerobic routines, games and various other activities accompanied by a fitness assessment will be the primary instructional focus of this course. Physical Education I is not a prerequisite for this course. *Can be taken for multiple credits.*

Conditioning and Advanced Strength Training:

Conditioning and Advanced Strength Training is a one-unit elective course designed to allow students to make gains in conditioning, muscle tone, and strength while emphasizing the importance of making an active healthy lifestyle a lifelong practice. Health and skill related activities such as flexibility, speed, agility, coordination and power, along with self-discipline and a positive attitude will be the content focus. Proper nutrition will also be examined and emphasized. Physical Education I is not a prerequisite for this course. *Can be taken for multiple credits.*

Mathematics:

To satisfy graduation requirements, each student must complete a math course each year he or she is enrolled in high school. Algebra 1, Geometry, Algebra 2 and one math course above Algebra 2 are required for graduation.

All Honors courses should substantially exceed the content standards, learning expectations, and performance indicators approved by the State Board of Education. Additionally, an honors course shall include a minimum of five of the nine components from the Tennessee Department of Education Framework of Standards for Honors Courses.

Algebra IA and Algebra IB:

Algebra IA is the first term of a two-term sequence in the study of Algebra I and is designed for students in the 9th grade who enter high school not ready to start Algebra 1. Time during this semester long course is spent integrating pre-algebra and introductory algebra skills. Students will receive an elective mathematics credit for successfully completing Algebra IA.

Algebra IB is the second course of the required two-term sequence. The combination of Algebra IA and Algebra IB will explore and apply concepts, processes, and skills that are essential to successfully completing the high school graduation requirement. More time is devoted to skill development than is possible in the one-term Algebra 1 class. Students who successfully complete Algebra IA and Algebra IB will receive credit for Algebra I.

Algebra I:

The fundamental purpose of Algebra I is to formalize and extend the mathematics that students learned in the middle grades. Because it is built on the middle grades' standards, this is a more ambitious version of Algebra 1 than has generally been offered. The critical areas deepen and extend understanding of linear and exponential relationships by contrasting them with each other and by applying linear models to data that exhibit a linear trend, and students engage in methods for analyzing, solving, and using quadratic functions. The Mathematical Practice Standards apply throughout each course and, together with the content standards, prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations. Successful completion of this sequence prepares students for Geometry. The "Pass" credit is ignored in attempted credits and is not counted in the GPA.

Honors Algebra I:

Honors Algebra is designed for students who did exceptionally well in the 8th grade mathematics. Course content covers the topics of Algebra 1 in greater depth and at a faster pace, thus providing time for enrichment through the study of additional performance objectives.

Algebra IA (Year-long):

Algebra IA Prep is the first part of a two-year sequence and is designed for students with a qualifying disability as documented in the IEP. This course will count as one math credit required for a regular diploma.

Algebra IB (Year-long):

This course is part of a two-year sequence and is designed for students with a qualifying disability as documented in the IEP. This course, along with the state EOC assessment, completes the Algebra I requirement and will count as the Algebra credit required for a regular diploma.

Geometry A and Geometry B:

Geometry A and Geometry B is a required two-term sequence is designed for students who complete Algebra 1 and not ready to start Geometry. More time is devoted to skill development than is possible in the one-term Geometry class. These courses will explore and apply concepts, processes, and skills that are essential to successfully completing the high school graduation requirement. The first term, Geometry A, is an elective credit and time is spent integrating Algebra 1 and introductory Geometry skills. The second term, Geometry B, continues focusing on Geometry skills. Successful completion of Geometry B will satisfy the geometry graduation requirement.

Geometry A (Year-long):

Year-long Geometry A is the first part of a two-year sequence and is designed for students with a qualifying disability as documented in the IEP. This course will count as one math credit required for a regular diploma.

Geometry B (Year-long):

Geometry B (Year-long) is the second part of a two-year sequence and is designed for students with a qualifying disability as documented in the IEP. This course, along with the state EOC assessment completes the Geometry requirement and will count as the Geometry credit required for a regular diploma.

Geometry:

The fundamental purpose of the course in Geometry is to formalize and extend students' geometric experiences from the middle grades. Students explore more complex geometric situations and deepen their explanations of geometric relationships, moving towards formal mathematical arguments. Important differences exist between this Geometry course and the historical approach taken in Geometry classes. For example, transformations are emphasized early in this course. Close attention should be paid to the introductory content for the Geometry conceptual category found in the high school CCSS. The Mathematical Practice Standards apply throughout each course and, together with the content standards, prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations. Successful completion of Geometry prepares a student for further work in Algebra 2. Prerequisite: Algebra I with a grade of "C" or better is recommended.

Honors Geometry:

In Honors Geometry, standards found in Geometry are covered more in-depth with emphasis placed on problem solving, writing skills (especially in writing of proofs) and algebraic applications. Additional enrichment objectives are covered as time permits. Successful completion of this Honors Geometry prepares a student for further work in algebra, usually Honors Algebra 2. Prerequisite: Algebra 1 in the 8th grade or Honors Algebra 1 in the 9th grade and Departmental Recommendation.

Algebra 2:

Building on their work with linear, quadratic and exponential functions, students extend their repertoire of functions to include polynomial, rational, and radical functions in Algebra 2. Students work closely with the expressions that define the functions, and continue to expand and hone their abilities to model situations and

to solve equations, including solving quadratic equations over the set of complex numbers and solving exponential equations using the properties of logarithms. The Mathematical Practice Standards apply throughout each course and, together with the content standards, prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations. Satisfactory completion of this course prepares students for entry into Pre-Calculus, Statistics, Applied Mathematical Concepts, or Bridge Math. Prerequisites: Algebra I and Geometry credit with a grade of “C” or better is recommended.

Honors Algebra 2:

Honors Algebra 2 provides a rigorous preparation for Honors Pre-Calculus. An emphasis is placed on algebraic proof and provides an enriched version of Algebra 2 through the study of additional objectives and topics. Successful completion of this course prepares students for entry into Pre-Calculus or Honors Pre-Calculus or Advanced Placement Statistics. Prerequisites: Algebra 1 and Honors Geometry credit with an “A” or “B” average grades or Departmental Recommendation.

Algebra 2A and Algebra 2B:

Algebra 2A, the first term of the required two-term sequence and Algebra 2B, the second term of the sequence, is designed for students who complete Geometry and not ready to start Algebra 2. More time is devoted to skill development than is possible in the one-term Algebra 2 class. These courses will explore and apply concepts, processes, and skills that are essential to successfully completing the high school graduation requirement. The first term is an elective mathematics credit and time is spent integrating Algebra I and introductory Algebra 2 skills. The second term focuses on continuing and completing the Algebra 2 standards. Successful completion of Algebra 2B results in the Algebra 2 graduation credit.

Pre-Calculus:

Pre-Calculus develops the topics essential for success in Calculus. Content includes a study of algebraic, transcendental, and trigonometric functions, as well as their compositions and inverses, vectors, polar graphing, complex numbers, conic sections, and sequences and series. Students who complete this course successfully will have a strong background for a first-year Calculus sequence. Prerequisites: Algebra 1, Geometry, and Algebra 2 with an “A” or “B” average grades recommended.

Honors Pre-Calculus:

The faster pace of Honors Pre-Calculus provides the time to enrich the content of Pre-Calculus through the study of additional objectives and topics. Successful completion of this course provides the student with the necessary prerequisites for Advanced Placement Calculus. Prerequisites: Geometry (Honors) and Algebra 2 (Honors) with an “A” or “B” average or Departmental Recommendation.

Calculus:

Calculus is designed for students who have a thorough knowledge of college preparatory mathematics. Course content includes the study of limits; derivatives; integration; applications; exponential, logarithmic and trigonometric functions. Prerequisites: Algebra 1, Geometry, Algebra 2 and Pre-Calculus.

Advanced Placement (AP) Calculus AB

AP Calculus AP is devoted mainly to the topics in differential and integral calculus. Students who study this course will be prepared to take the Advanced Placement AB Calculus Exam and seek college credit. The scope of this course follows the topics listed in the College Board Advanced Placement Mathematics Course Description. Prerequisites: Honors Pre-Calculus or Departmental Recommendation.

Advanced Placement (AP) Calculus BC:

AP Calculus BC is an extension of all the topics covered in AP Calculus AB with additional topics. Students who study this course will be prepared to take the Advanced Placement BC Calculus Exam and seek college credit. The scope of this course follows the topics listed in the College Board Advanced Placement Course Description. Prerequisites: AP Calculus AB or Departmental Recommendation.

Statistics:

Statistics is non-calculus in its orientation and designed to introduce students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. The major themes in Statistics include: interpreting categorical and quantitative data, conditional probability and other rules of probability, using probability to make decisions, and making inferences and justifying conclusions. Statistics is intended for students interested in business, social sciences, education, and data analysis. Prerequisites: Algebra 2.

Advanced Placement (AP) Statistics:

AP Statistics is non-calculus in its orientation with a major focus on data analysis. Students who study this course will be prepared to take the AP Statistics Exam and seek college credit. This course follows the topics listed in the College Board Advanced Placement course description. Prerequisites: English 2 or Honors English 2 with a grade of “B or better and Algebra 2 with a grade of “C” or better are recommended, and Departmental Recommendation.

Bridge Math:

Bridge Math is a 4th year senior level math credit course designed for students who need to refresh core mathematics skills prior to further study. It is recommended that students who have not scored at least a 19 on their ACT assessment (or equivalent assessment) take this course to be better prepared for post-secondary study. Prerequisite: Algebra 2.

Advanced Placement (AP) Computer Science:

AP Computer Science emphasizes object-oriented programming methodology with an emphasis on problem solving and algorithm development and is meant to be the equivalent of a first-semester course in computer science. It also includes the study of data structures and abstraction. The scope and sequence of this course follows the topics listed in the College Board Advanced Placement course description. Students who study this course will be prepared to take the Advanced Placement Computer Science “A” AP Exam and seek college credit. This course satisfies the State’s four-year math requirement for those students who have met the ACT and/or SAT college readiness benchmarks in mathematics. Prerequisite: Math Computer Applications or Departmental Recommendation.

Robotics:

Robotics is deeply submerged in modeling, abstraction, and precision. The entire course is founded on Problem Based Learning (PBL). Students are given a scenario and must analyze the problem; calculate measurements and establish various thresholds; design, construct, and program a robot to complete the given task; collect and analyze data; modify and adjust program, robot, and calculations based on the collected data; and repeat the process until objectives have been completed. The mathematical range of this course extends to pre-calculus due to the importance of calculating precise angles and tangents. **This course *does not* satisfy the State’s four-year math requirement.**

Frequently Asked Questions about High School Mathematics:

What mathematics courses are required for graduation?

Answer: The TDOE policy requires students to take a mathematics course each year while in high school to complete a four credit core that must include Algebra I, Geometry, and Algebra II (or the equivalent of these courses) and one advanced math course. Students must be enrolled in a mathematics course each school year. See the TBR and UT list of courses to identify accepted math courses for college entrance requirements.

What math course should students take after completing Algebra II?

Answer: Currently, many students have access to STEM (Science, Technology, Engineering, & Mathematics) focused courses such as Pre-Calculus, Applied Mathematical Concepts, Bridge Math, Calculus, College-Prep Statistics, or an Advanced Placement or Dual Enrollment course. These options will still be available to any student who wishes to take them according to local school board policy. Note: Courses such as AP Physics, Computer Science, Robotics, or Math Computer Applications can count as a 4th year math course, but not as a math AND science credit.

What is Bridge Math?

Answer: The Bridge Math course is designed for students who have not scored 19 or higher on the ACT mathematics subtest or 460 on the SAT mathematics subtest by the beginning of the senior year. It is intended to “mirror” the content in a developmental math course at the college level.

Can students earn 2 credits in math in one year?

Answer: Yes, provided the proper mathematics sequence is followed and that the student has departmental approval.

If a student earns 4 math credits in 3 years (non-middle school), does he/she need to take an additional year of math the senior year?

Answer: Students may earn multiple math credits in one year, but they must still complete a math course each year they are enrolled in high school. These students will graduate with a number of credits well above the minimum required for graduation.

What is the difference between a traditional high school pathway (Algebra I, Geometry, Algebra II) and the integrated pathway (Integrated I, II, III)?

Answer: The difference in the two pathways is how the standards are organized into the three courses. For example, in the traditional pathway, the geometry conceptual category is its own course. In the integrated

pathway, there are geometry standards present in all three courses. The integrated pathway intends for connections across all conceptual categories to be made, as standards from all conceptual categories are present in each of the three courses. By doing so, the coherence of studying mathematics across the various domains in K-8 is preserved.

What happens if a student transfers from (or into) a school with a different high school pathway?

Answer: If a student has earned credit in Algebra I and transfers to a district on the integrated pathway, that student should be placed in Integrated Math II. The Algebra I credit will act as the Integrated Math I credit. If a student transfers in the middle of the year from one pathway to the other, the student should be placed in the appropriate course. For example, if a student transfers from Algebra II in the middle of the year, he should be placed in Integrated Math III. Teachers will support these students just as they do when any student transfers and there are differences in pacing, pathways, materials, etc.

Can Physics or AP Physics count as a student’s fourth math credit:

Answer: Yes, a physics course can count as a student’s fourth math credit provided it is not a student’s third science credit.

Knox County Schools Mathematics High School Progression							
8 th Grade	9 th Grade		10 th Grade		11 th Grade	12 th Grade	
Honors Algebra I	Honors Geometry		Honors Algebra II		Honors Pre-Calculus	AP Calculus AB	AP Calculus BC
	Honors Algebra I		Honors Geometry (Fall)	Honors Algebra II (Spring)			
Pre- Algebra	Honors Algebra I		Honors Geometry (Fall)	Honors Algebra II (Spring)	Honors Pre-Calculus	AP Calculus AB	AP Calculus BC
			Geometry		Algebra II	Pre-Calculus	CP Calculus
	Algebra I		Geometry		Algebra II	Pre-Calculus, CP Statistics, Applied Mathematical Concepts, OR AP Statistics	
	Algebra IA (Fall)	Algebra IB (Spring)	Geometry		Algebra II	Bridge Math, Pre-Calculus, CP Statistics, Applied Mathematical Concepts, OR AP Statistics	

Science:

To satisfy graduation requirements, three (3) credits of science are required. One unit must be Biology; one must be Chemistry or Physics, and one additional lab science course. Physics (Algebra 2 based or above) may count for a fourth year of math. If Physics is used for a fourth year of math, it cannot count as science credit towards graduation. Students who have a qualifying IEP must take Biology and two additional lab sciences. Chemistry or physics is not required of a student who has an IEP but can be taken.

Some eighth students may enter high school with an Honors Physical Science or a Biology credit. These credits do count as credits towards the graduation requirement. However, these students are strongly encouraged to take additional sciences in high school.

All Honors courses should substantially exceed the content standards, learning expectations, and performance indicators approved by the State Board of Education. Additionally, an honors course shall include a minimum of five of the nine components from the Tennessee Department of Education Framework of Standards for Honors Courses.

The following chart summarizes graduation requirements as well as additional *elective* lab sciences:

Biology	Chemistry or Physics	Third Lab Science for Graduation Credit	Additional Lab Science Electives
Biology I B	Chemistry I	Biology 2	Microbiology
Biology I	Chemistry I B	Honors Biology 2	Botany/Zoology
Biology I (Honors)	Chemistry I (Honors)	AP Biology	Marine Ecology
	Physics	Scientific Research (CP/Honors)	Astronomy
	Physics (Honors)	Anatomy/Physiology (CP/Honors)	Honors Organic and Biochemistry
		Ecology	<i>Wildlife Principles Elective</i> *** Not NCAA
		Physical Science (CP/Honors)	
		Physical Science B	
		Earth Science	
		Geology	

		Chemistry 2	
		Honors Chemistry 2	
		AP Chemistry 2	
		AP Physics C: Electricity and Magnetism	
		AP Physics C: Mechanics	
		AP Physics 1 AP Physics 2	
		Physical World Concepts	
		Environmental Science (CP/Honors)	
		AP Environmental Science	
		Physics and Honors Physics	
		*Some CTE Course offerings will satisfy the additional lab science.	

Note: The additional elective lab sciences do not satisfy the third science credit graduation requirement. Wildlife Principles does not satisfy NCAA requirements. However, these courses will count towards a student's elective focus.

Life Sciences:

Biology 1:

The goal of Biology 1 is to develop an understanding of the diversity and unity in living things. Concepts covered include current and emerging technologies as well as interactions of organisms with their environment, chemical structure of organisms, transfer of energy in organisms, cell structure and function, continuity and change in living things, diversity of living things, and evidence of biological evolution.

Honors Biology 1:

Honors Biology 1 encompasses all of the standards of Biology but places increased emphasis on development of critical thinking skills. Prerequisites: Honors level is based upon a combination of standardized test scores, past performance in science, and teacher recommendations.

Biology 1A and Biology 1B:

Biology 1A and Biology 1B is two-term sequence course designed for students who need additional time for this state requirement. The first term, Biology 1A, is spent focusing on the diversity of organisms, interactions of organisms with their environment, chemical structure of organisms, and cellular structures, function, and reproduction. The second term, Biology 1B, focuses on genetics and heredity and the evidence of biological evolution. More time is devoted to skill and cognitive development than is possible in the one-term Biology 1 class. This course includes preparation for the state End of Course exam. The fall semester serves as an elective credit towards graduation, while the second term serves as the Biology 1 credit. Prerequisites: Biology 1A/B is based upon a combination of standardized test scores, past performance in science, teacher recommendations, and established enrollment limits.)

Biology 1A and Biology 1B (for students with a documented IEP):

Biology 1A and Biology 1B are part of a two-semester sequence and is designed for students with a qualifying disability as documented in the IEP. Biology 1A will count toward one science credit as required for a regular diploma. Biology 1B, along with the state EOC, will count toward the Biology credit as required for a regular diploma. The two-sequence course may be taught in one year or over multiple years.

Honors Biology 2:

Honors Biology 2 takes the standards of Biology 2 to a much deeper level. The course is fast paced and includes time for some enrichment topics. Prerequisites: Biology 1, Chemistry 1 and Department Recommendation.

Advanced Placement (AP) Biology:

AP Biology is a first-year college level biology course, which follows the syllabus of the College Board's Advanced Placement (AP) Program. The AP Biology curriculum is designed to prepare students to take the College Board AP Biology test given in May of each year. The course has been audited and approved by the College Board. For schools on block scheduling, Biology 2 Honors is intended to be the first semester course that will lead into AP Biology in the spring. This course offers accelerated and in-depth coverage of biology topics in the areas of molecular and cellular biology, genetics and evolution, and organismal and population biology. Some schools may elect to offer AP Biology as a stand-alone, one-semester course. Students may be required to complete a summer assignment and/or attend additional classroom or laboratory sessions beyond the regularly scheduled classes. Prerequisites: Biology 1 and Chemistry and Biology 2 (Honors)-based on school requirement.

Microbiology:

Microbiology examines the role of microbes in everyday life. Major topics covered include microbial cell biology, microbial genetics, microorganism's interactions in the environment, and the interactions and impact of microorganisms with humans. Prerequisites: Biology 1 and Chemistry 1. *The State Board of Education has approved this course through 2020.*

Human Anatomy & Physiology:

Human Anatomy & Physiology is a study of the body's structures and respective functions at the molecular/biochemical, cellular, tissue, organ, systemic, and organism levels. Students explore the body through laboratory investigations, models, diagrams, and/ or comparative studies of the anatomy of other organisms. Content includes the study of the structure and function of cells, tissues, organs, and body systems. Some schools may offer this course as dual credit in coordination with a local cooperating institution of higher education. Prerequisites: Biology 1 is required; Chemistry 1 is recommended.

Honors Human Anatomy & Physiology:

Honors Human Anatomy & Physiology takes the standards of Human Anatomy & Physiology to a much deeper level. The course is fast paced and includes time for some enrichment topics. Prerequisites: Biology 1 is required, Chemistry 1 is recommended and teacher recommendation.

Environmental Science:

Environmental Science provides students with an opportunity to develop an understanding of interrelationships in the natural world. In addition, it allows them to identify natural and man-made environmental problems and design and evaluate possible solutions for environmental problems. This course will also cover interactions and dynamics of ecosystems, unity and diversity of biological change, earth systems and human activity, and the interdependence of science, engineering and society. Environmental Science *can* be used as a semester one course previous to AP Environmental Science. Prerequisites: Algebra 1 and Biology recommended.

Advanced Placement (AP) Environmental Science:

AP Environmental Science is a first-year college level environment science course that follows the syllabus of the College Board's Advanced Placement (AP) Program. The AP Environmental Science course is designed to prepare students to take the College Board AP Environmental Science test given in May of each year. The course has been audited and approved by the College Board. The goal of this course is to provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems both natural and human-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving or preventing them. Students may be required to complete a summer assignment and/or attend additional classroom or laboratory sessions beyond the regularly scheduled classes. Prerequisites: Biology 1, Chemistry 1 and teacher recommendation.

Botany/Zoology:

Botany/Zoology is a one-unit course which surveys the major phyla of the plant and animal kingdoms. The course covers the diversity of plants and animals and emphasizes the distinguishing characteristics of each

kingdom and groups within the kingdoms. The importance of plants and animals to various ecosystems will be included. Botany topics will include vascular and nonvascular plants. Zoology topics will include vertebrates and invertebrates. Prerequisites: Biology 1 and Chemistry 1. *The State Board of Education has approved this course through 2023.*

Marine Ecology:

In Marine Ecology, activities are designed to promote higher level thinking skills through inquiry and to simulate marine environmental conditions and research methods. Environmental issues are used to develop critical thinking skills that will equip students to make ethical decisions regarding humans and the marine environment. The course incorporates the use of lab, group and limited field activities, computer technology, and saltwater aquaria. Prerequisites: Biology 1 and Chemistry 1. *The State Board of Education has approved this course through 2023.*

Physical Sciences:

Physical Science:

The primary theme for Physical Science is the study of matter and energy. The course is designed to introduce students to the concepts of forces and motion, chemical and physical properties of matter, the ways in which matter and energy interact, the forms and properties of energy, and other basic concepts in chemistry and physics. Prerequisites: The fundamental level of this course is based upon a combination of standardized test scores, past performance in science, teacher recommendations, and established enrollment limits.

Chemistry I:

The goal of Chemistry 1 is to develop an understanding of the relevance of chemistry as it relates to standards of living, career choices, and current issues in science and technology. Course content includes laboratory techniques and safety, properties and structures of matter in its various states, chemical calculations and quantitative relationships, chemical bonding and molecular structure, chemical reactions, solutions, gas laws, and acids and bases. The ability to make mathematical computations using fractions, decimals, ratios and proportions, and exponents is required. Honors Chemistry is designed to meet the needs of the more academically able student and will include a basic study of nuclear principles and organic chemistry. Prerequisite: Algebra 1 and a combination of standardized test scores, past performance in science and mathematics, and teacher recommendation.

Honors Chemistry I:

Honors Chemistry I takes the standards of Chemistry I to a much deeper level. The course is fast paced and includes time for some enrichment topics. Prerequisites: Algebra I, a combination of standardized test scores, past performance in science, and teacher recommendation.

Honors Chemistry 2 and Advanced Placement (AP) Chemistry:

AP Chemistry is a first-year college level chemistry course that follows the syllabus of the College Board's Advanced Placement (AP) Program. The AP Chemistry curriculum is designed to prepare students to take the College Board AP Chemistry test given in May of each year. This course has been audited and approved by

the College Board. For schools on block scheduling, Honors Chemistry 2 is intended to be the first semester course that will lead into AP Chemistry in the spring. This course offers accelerated and in-depth coverage of chemistry topics in the areas of structure and states of matter, kinetic theory, chemical reactions including kinetics, and the concepts of thermodynamics. Students may be required to complete a summer assignment and/or attend additional classroom or laboratory sessions beyond the regularly scheduled classes.

Prerequisites: Chemistry 1, Algebra 1 and 2 required; current enrollment in Advanced Math is strongly suggested; Chemistry 2. Or Honors Chemistry 2.

Honors Organic Biochemistry:

Honors Organic Biochemistry is an introduction to organic chemistry. The course includes nomenclature, structure and reactions, in-depth treatment of biological molecules such as proteins, lipids and numerous metabolic processes such as glycolysis, gluconeogenesis and the central dogma will make up the biochemistry portion of the course. Prerequisites: Chemistry 1 and Biology 1. (Approval from the Science Supervisor is required before offering this course.) *The State Board of Education has approved this course through 2024.*

Physics:

Physics is the study of the interrelationships between matter and energy. Topics of study include force, motion, momentum, energy, heat, light, sound, electricity and magnetism, and atomic and nuclear physics.

Prerequisites: Algebra 1; Biology and Chemistry recommended.

Advanced Placement (AP) Physics 1:

AP Physics 1 is equivalent to a first semester college course in algebra-based physics. This course covers Newtonian mechanics (including rotational dynamics and angular momentum); work, energy and power; and mechanical waves and sound. It also introduces electric circuits. Prerequisites: Geometry and currently taking Algebra 2 or equivalent course.

Advanced Placement (AP) Physics 2:

AP Physics 2 is equivalent to a second semester college course in algebra-based physics. The course covers fluid mechanics; thermodynamics: electricity and magnetism; optics; and atomic and nuclear physics.

Prerequisite: AP Physics 1 or comparable introduction course in physics. Students should have taken or be concurrently taking pre-calculus or an equivalent course.

Advanced Placement (AP) Physics C-EM (Electricity and Magnetism):

AP Physics C-EM is a first year, calculus-based college level Physics course that has been audited and approved by the College Board's Advanced Placement (AP) Program. This course is equivalent to a semester-long calculus-based college course in classical Electricity and Magnetism that includes a strong laboratory component. The Physics C course requires a more advanced knowledge of mathematics than the Physics 1 or 2 course. Topics covered include electrostatics, conductors, capacitors and dielectrics, electric circuits, magnetic fields, and electromagnetism. Students may be required to complete a summer assignment and/ or attend additional classroom or laboratory sessions beyond the regularly scheduled classes.

Prerequisites: Pre-calculus and concurrent enrollment in Calculus, Physics or Honors Physics.

Advanced Placement (AP) Physics C-M (Mechanics):

AP Physics C-M is a first year, calculus-based college level Physics course that has been audited and approved by the College Board's Advanced Placement (AP) Program. This course is equivalent to a semester-long, calculus-based college course in classical Mechanics that includes a strong laboratory component. The Physics C course requires a more advanced knowledge of mathematics than the Physics 1 or 2 course. Topics covered include the following six content areas: kinematics; Newton's laws of motion; work, energy and power; systems of particles and linear momentum; circular motion and rotation; and oscillations and gravitation. Students may be required to complete a summer assignment and/or attend additional classroom or laboratory sessions beyond the regularly scheduled classes. Prerequisites: Pre-calculus and concurrent enrollment in Calculus, Physics or Honors Physics.

Earth and Space Sciences:

Geology:

Geology explores the origins and the connections between the physical, chemical, and biological processes of the earth system. The student will investigate maps, matter and minerals, the rock cycle, geologic history, oceanography, hydrologic cycle, geologic hazards, and plate tectonics. Geology focuses on the physical aspects of the earth processes and cycles. Tennessee geologic features will also be a part of this study. Prerequisites: Biology 1 and Chemistry .

Astronomy:

The goal of Astronomy is to introduce students to the concepts, theories, and laws defining the motions of the planets and the properties of the sun, moon, stars, planets and other bodies of the heavens. Students will actively observe the day and night skies; make measurements of astronomical phenomena; create projects and models; and use computers for simulations and research. Prerequisites: Algebra 1 and Geometry. *The State School Board has approved this course through 2023.*

Social Studies:

To satisfy graduation requirements for Social Studies, students must earn one credit in World History and Geography, one credit in United States History and Geography, one-half credit in United States Government and Civics, and one-half credit in Economics for a total of three credits in Social Studies. One-half credit in Personal Finance remains a graduation requirement. Additionally, successful completion of the Tennessee Civics Assessment (minimum 70%) is required for graduation.

Instruction in Honors World History and Geography and Honors Ancient History will substantially exceed the content standards, learning expectations, and social studies practices, as approved by the State Board of Education. Additionally, an honors course shall include a minimum of five of the nine components from the Tennessee Department of Education Framework of Standards for Honors Courses.

World History and Geography:

In World History and Geography, students will study the rise of the nation-state in Europe, the origins and consequences of the Industrial Revolution, political reform in Western Europe, imperialism across the world, and the economic and political roots of the modern world. Students will explain the causes and consequences of the great military and economic events of the past century, including the World Wars, Great Depression, Cold War, and Russian and Chinese Revolutions. Students will study the rise of nationalism and the continuing persistence of political, ethnic, and religious conflict in many parts of the world. Students will explore geographic influences on history, with attention to political boundaries that developed with the evolution of nations from 1750 to the present and the subsequent human geographic issues that dominate the global community. Additionally, students will examine aspects of technical geography and how these innovations continuously impact geopolitics in the contemporary world. This course is a continuation of the 6th and 7th grade survey courses of world history and geography and is designed to help students think like historians, focusing on historical concepts in order to build a foundational understanding of the world. Appropriate primary sources have been embedded in the standards in order to deepen the understanding of world history and geography. Special emphasis will be placed on the contemporary world and its impact on students today. This course may be combined with English I.

Honors World History and Geography:

This course description for Honors World History and Geography is the same as the CP World History and Geography course and follows the same state standards and local curriculum but with increased rigor. Students will study the rise of the nation-state in Europe, the origins and consequences of the Industrial Revolution, political reform in Western Europe, imperialism across the world, and the economic and political roots of the modern world. Students will explain the causes and consequences of the great military and economic events of the past century, including the World Wars, Great Depression, Cold War, and Russian and Chinese Revolutions. Students will study the rise of nationalism and the continuing persistence of political, ethnic, and religious conflict in many parts of the world. Students will explore geographic influences on history, with attention to political boundaries that developed with the evolution of nations from 1750 to the present and the subsequent human geographic issues that dominate the global community. Additionally, students will examine aspects of technical geography and how these innovations continuously impact geopolitics in the contemporary world. The course is designed to prepare students for Advanced Placement coursework. This course is a continuation of the 6th and 7th grade survey courses of world history and geography and is designed to help students think like historians, focusing on historical concepts in order to build a foundational understanding of the world. Appropriate primary sources have been embedded in the standards in order to deepen the understanding of world history and geography. Special emphasis will be placed on the contemporary world and its impact on students today. This course may be combined with Honors English I.

Advanced Placement (AP) World History: Modern:

AP World History Modern begins in 1200 CE and continues to the present. Students are asked to analyze primary and secondary sources, develop historical arguments, make historical connections, and utilize

reasoning about comparison causation, and continuity and change over time. Students will explore events, individuals, developments, and processes in different times and places through six themes including humans and the environment, cultural developments and interactions, governance, economic systems, social interactions and organizations, and technology and innovation. Prerequisite: Departmental Recommendation.

United States Government and Civics:

U.S. Government and Civics is a one-half credit course. Students will study the purposes, principles, and practices of American government as established by the United States Constitution. Students will learn the structure and processes of the government of the state of Tennessee and local governments. Students will recognize their rights and responsibilities as citizens as well as how to exercise these rights and responsibilities at the local, state, and national levels. This course can be used for compliance with T.C.A. § 49-6-1028, in which all districts must ensure that a project-based civics assessment is given at least once in grades 4–8 and once in grades 9–12.

Advanced Placement (AP) United States Government and Politics:

AP U.S. Government and Politics provides a college-level, nonpartisan introduction to key political concepts, ideas, institutions, policies, interactions, roles, and behaviors that characterize the constitutional system and political culture of the United States. Students will study U.S. foundational documents, Supreme Court decisions, and other texts and visuals to gain an understanding of the relationships and interactions among political institutions, processes, and behaviors. They will also engage in disciplinary practices that require them to read and interpret data, make comparisons and applications, and develop evidence-based arguments. In addition, they will complete a political science research or applied civics project. The required project adds a civic component to the course, engaging students in exploring how they can affect, and are affected by, government and politics throughout their lives. The project might have students collect data on a teacher-approved political science topic, participate in a community service activity, or observe and report on the policymaking process of a governing body. Students should plan a presentation that relates their experiences or findings to what they are learning in the course.

Prerequisite: Departmental Recommendation.

United States History and Geography (Post-Reconstruction to the Present):

In United States History and Geography, students will examine the causes and consequences of the Industrial Revolution and the United States' growing role in world diplomatic relations, including the Spanish-American War and World War I. Students will study the goals and accomplishments of the Progressive movement and the New Deal. Students will also learn about the various factors that led to our nation's entry into World War II, as well as the consequences for American life. Students will explore the causes and course of the Cold War. Students will study the important social, cultural, economic, and political changes that have shaped the modern-day United States resulting from the Civil Rights Movement, Cold War, and recent events and trends. Additionally, students will learn about the causes and consequences of contemporary issues impacting the world today. Students will continue to use skills for historical and geographical analysis as they examine United States history after Reconstruction, with special attention to Tennessee connections in history, geography, politics, and people. Students will continue to learn fundamental concepts in civics, economics, and geography within the context of United States history. The reading of primary source documents is a key feature of the United States history course. Specific primary sources have been embedded within the standards for depth and clarity. Finally, students will focus on current human and physical geographic issues important

in the contemporary United States and global society. This course will place Tennessee history, government, and geography in context with United States history in order to illustrate the role our state has played in our nation's history. This course is the second of a two-year survey of United States History and Geography, continuing from 8th grade's study of United States History and Geography. This course can be used for compliance with T.C.A. § 49-6-1028, in which all districts must ensure that a project-based civics assessment is given at least once in grades 4–8 and once in grades 9–12.

Advanced Placement (AP) United States History:

The AP United States History course is designed to provide students with the analytic skills and factual knowledge necessary to deal critically with the problems and materials in United States history. The program prepares students for intermediate and advanced college courses by making demands upon them equivalent to those made by full-year introductory college courses. Students should learn to assess historical materials-their relevance to a given interpretive problem, reliability, and importance- and to weigh the evidence and interpretations presented in historical scholarship. This AP United States History course will develop the skills necessary to arrive at conclusions on the basis of an informed judgment and to present reasons and evidence clearly and persuasively in essay format. Prerequisite: Departmental Recommendation.

Advanced Placement (AP) United States History/ AP English 3 Combined:

AP US History Combined is a two-credit course that combines Advanced Placement English 3 and Advanced Placement United States History. The English course focuses on developing sophistication and maturity in writing and critically reading and analyzing texts from American literature. The History course provides an in- depth analysis of the development of American history from the pre-Colonial period through the present. It includes a detailed examination of the political, diplomatic, intellectual, cultural, social, and economic history. Because English 3 AP is based on the survey of American literature, it is an obvious complement to the AP United States History course. Prerequisite: Departmental Recommendation.

Advanced Placement (AP) European History:

AP European History provides an in-depth study of the development of Western European history. The course is designed to increase the knowledge of European political, social, economic, and intellectual history of the nations of Western Europe. The student will gain a better understanding of the problems faced by people at a given time, relate these problems to the present, and attempt to find solutions. This course follows College Board guidelines and is taught at the college level. Prerequisite: Departmental Recommendation

Economics:

Economics is a one-half credit course. Students will examine the allocation of scarce resources and consider the economic reasoning used by consumers, producers, savers, investors, workers, and voters. Students will explore the concepts of scarcity, supply and demand, market structures, national economic performance, money and the role of financial institutions, economic stabilization, and trade. Finally, students will examine key economic philosophies and economists who have and continue to influence economic decision-making.

Advanced Placement (AP) Micro-Economics:

The purpose of AP Micro-Economics is to give students a thorough understanding of the principles of economics that apply to the functions of individual decision makers, both consumers and producers, within the economic system. It places primary emphasis on the nature and functions of product markets and includes the study of factor markets and of the role of government in promoting greater efficiency and equity in the economy. Prerequisite: Departmental Recommendation.

Personal Finance:

Personal Finance is a one-half credit course. This course is designed to inform students how individual choices directly influence occupational goals and future earnings potential. Real world topics covered will include income, money management, spending and credit, as well as saving and investing. (This course is recommended for grade 12.)

Tennessee History:

Students will examine the history of Tennessee, including the cultural, geographic, economic, and political influences upon that history. Students will discuss Tennessee's indigenous peoples as well as the arrival of Euro-American settlers. Students will analyze and describe the foundation of the state of Tennessee. Students will identify and explain the origins, impact, and aftermath of the Civil War. Students will discuss the rise of a manufacturing economy. Finally, students will examine and discuss the Civil Rights Movement and Tennessee's modern economy and society.

This course follows the same organization as Section VI from the Tennessee Blue Book. Additionally, all United States History courses (i.e., 3rd grade, 4th grade, 5th grade, 8th grade, and United States History) can use the course standards to elaborate on Tennessee history.

Sociology:

Sociology is a one-half credit course. Students will explore the ways sociologists view society and how they study the social world. Students will examine culture, socialization, deviance, and the structure and impact of institutions and organizations as well as selected social problems and how change impacts individuals and societies. The standards reflect those recommended by the American Sociological Association.

Psychology:

Psychology is a one-half credit course. Students will study the development of scientific attitudes and skills, including critical thinking, problem solving, and scientific methodology. Students will also examine the structure and function of the nervous system in humans, the processes of sensation and perception, lifespan development, and memory, including encoding, storage, and the retrieval of memory. Students will look at perspectives of abnormal behavior and categories of psychological disorders, including treatment thereof. Students will elaborate on the importance of drawing evidence-based conclusions about psychological phenomena and gain knowledge on a wide array of issues on both individual and global levels. Students will examine social and cultural diversity as well as diversity among individuals. Throughout the course, students will examine connections between content areas within psychology and relate psychological knowledge to everyday life while exploring the variety of careers available to those who study psychology.

Advanced Placement (AP) Psychology:

AP Psychology is a one credit, semester-long course (equivalent to 90 days of instruction) and is designed to introduce students to the systematic and scientific study of the behavior and mental processes of human beings and other animals. Students are exposed to the psychological facts, principles, and phenomena associated with each of the major subfields within psychology. They also learn about the ethics and methods psychologists use in their science and practice.

Prerequisite: Departmental Recommendation.

Advanced Placement (AP) Human Geography:

The purpose of the AP Human Geography course is to introduce students to the systemic study of patterns and processes that have shaped human understanding, use, and alteration of Earth's surface. Students learn to employ spatial concepts and landscape analysis to examine human socioeconomic organization and its environmental consequences. They also learn about the methods and tools geographers use in their research and applications.

Bible History:

Bible History is an elective course. This course is a survey of the Bible with emphasis upon its historical, literary, geographical, artistic, and cultural aspects. This course offers insights into the many historical events recorded in the Bible. It treats the Bible as a great literary work in itself as well as a primary source of allusions found in countless works of literature, art, and music. The first half focuses primarily on the Old Testament and the second half on the New Testament.

***Film Studies:**

Film Studies is an elective course open to Knox County Schools students. The curriculum for this course ranges from the history of modern cinema and techniques of film production to the influence of cinema in 20th Century American culture. It is also a supplement to United States and World History classes. Students will view numerous films, which represent every major cinematic genre from the Silent Era to Film School Generation, analyzing the parallels between each cinematic style and the events that shaped American history/culture across the 20th Century. Students will also explore the relationship between literature, literary components and storytelling to their onscreen translation. Finally, the students will leave this class with a refined appreciation for film-making as an art and as a medium which continues to emulate and redefine American culture.

*Note: This course may be offered for one-half credit or one credit. *The State Board of Education has approved this course through 2023.*

Americans at War:

In Americans at War, students will examine the causes and consequences of the American Revolution, the War of 1812, the Mexican American War, Indian Wars, Civil War, Spanish-American War, and World War I. Students will also learn about the various factors that led to America's entry into World War II, as well as its consequences for

American life. Students will explore the causes and course of the Cold War, which led to the United States involvement in Korea and Vietnam. Additionally, students will learn the causes and consequences of contemporary issues impacting their world today. Students will continue to use skills for historical and geographical analysis as they examine American history since the American Revolution. Students will

continue to learn fundamental concepts in civics, economics, and geography within the context of United States history. The reading of primary source documents and secondary sources is a key feature of United States history standards. Finally, students will focus on current human and physical geographic issues important in contemporary America and the global society that relates directly to topic of this course. *The State Board of Education has approved this course through 2020.*

Specialized Education:

Intervention (9-12):

Intervention for students in grades 12 are courses designed for students with a qualifying disability as documented in the IEP. Interventions may include skill-based instruction in reading, math, prevocational, study, and/or social/emotional skills.

ELA Comprehensive Program (9-12):

The ELA Comprehensive Program is designed for students with more severe disabilities who require a replacement of core, content instruction. This course is aligned to grade level/content standards but does not meet graduation requirements for a regular diploma. Students enrolled in this course will take the state required EOC for English II prior to graduation with a special education diploma.

Mathematics Comprehensive Program (9-12):

The Mathematics Comprehensive Program is designed for students with more severe disabilities who require a replacement of core, content instruction. This course is aligned to grade level/content standards but does not meet graduation requirements for a regular diploma. Students enrolled in this course will take the state required EOC for Algebra I prior to graduation with a special education diploma.

Science Comprehensive Program (9-12):

The Science Comprehensive Program is designed for students with more severe disabilities who require a replacement of core, content instruction. This course is aligned to grade level/content standards but does not meet graduation requirements for a regular diploma. Students enrolled in this course will take the state required EOC for Biology I prior to graduation with a special education diploma.

Mathematics Functional Math Skills:

Math Skills is designed for 12th grade+ students with a qualifying disability as documented in the IEP and on a special education diploma path.

Read Functional Reading Skills:

Reading Skills is designed for 12th grade students with a qualifying disability as documented in the IEP and on a special education diploma path.

Work-Based Learning:

Work-Based Learning is a one-half credit course. This course is designed to inform students how individual choices directly influence occupational goals and future earnings potential. Real world topics covered will include income, money management, spending and credit, as well as saving and investing. This course is recommended for students in grade twelve.

Peer Tutoring:

Peer Tutoring is designed for students who desire to give academic and social support to fellow students with a disability. Application with teacher recommendation and approval from school counselor and administrator is required. *Students may earn multiple elective credits in this course.*

Principles of Transition: Introduction to Self-Determination:

Introduction to Self-Determination is designed to equip students who have an IEP with the knowledge concerning the legal rights of individuals with a disability and how to advocate for themselves in their school and community settings. Placement in this course is determined by the IEP team.

Principles of Transition: Focus on Adulthood:

Focus on Adulthood is designed to equip students who have an IEP with the knowledge and skills necessary to transition into postsecondary community involvement and independent living. Through a series of in-class and out—of-class activities, students will refine their self-awareness through a discovery process and then learn about relevant community supports and how to access them. Placement in this course is determined by the IEP team.

Principles of Transition: Planning for Postsecondary:

Planning for Postsecondary is designed to provide opportunities for students who have an IEP to finalize their postsecondary transition plans and develop concrete steps necessary to transition seamlessly into postsecondary, including being an active participant in developing a summary of performance. Placement in this course is determined by the IEP team.

Alternate Academic Diploma Courses:

The following courses may be used for students who have an IEP and take the state alternate assessment. A student on alternate assessment may participate in any combination of these courses regardless of special education diploma path. The following 16 courses are a *required* portion of the 22 credits needed to obtain the Alternate Academic Diploma. Standards for each course are available on the Tennessee Department of Education website at www.tn.gov/education.

Required Courses for Students to Attain an Alternate Academic Diploma

- Alternate Academic Diploma – Algebra I
- Alternate Academic Diploma -Algebra II
- Alternate Academic Diploma –Geometry
- Alternate Academic Diploma -Applied Mathematical Concepts

- Alternate Academic Diploma -English I
- Alternate Academic Diploma -English II
- Alternate Academic Diploma -English III
- Alternate Academic Diploma -English IV
- Alternate Academic Diploma -Physical Science
- Alternate Academic Diploma -Earth and Space Science
- Alternate Academic Diploma -Biology 1
- Alternate Academic Diploma -World History and Geography
- Alternate Academic Diploma -United States History and Geography
- Alternate Academic Diploma -United States Government and Civics
- Alternate Academic Diploma -Economics
- Alternate Academic Diploma -Personal Finance

World Language:

Students should progress through world language courses in sequence. Students must complete each level with a passing grade before enrolling in the next level. Each course offers one unit of credit. Two (2) sequential units of the same world language satisfy the requirement for graduation. Completion of two (2) sequential units of the same world language for high school credit meets the requirement for admission to most university programs; however, language study beyond the basic requirement will better prepare students for entry into a university program. Therefore, the World Language department highly recommends any student planning to attend a four-year college or university continue world language study through level 3 and beyond. For this reason, students should begin World Language in grade 9, or earlier, when possible.

Generic course descriptions for alphabetic modern languages Arabic, French, German, Russian, and Spanish appear below. Due to differences in course progressions for logographic modern languages such as Chinese, visual modern languages such as American Sign Language (ASL), and classical languages such as Latin, descriptions for these courses are listed separately. For Honors courses, only additional expectations are highlighted in the course description.

Modern Languages:

Modern languages are living languages currently utilized in every day communication by native speakers. Students of world languages will be able to communicate through interpretive, interpersonal, and presentational modes of communication. Students also gain cultural and intercultural competencies through thoughtful examination of target culture products, practices, and perspectives in comparison to one's own culture. The Tennessee World Language Standards (2017) and the American Council on the Teaching of Foreign Languages (ACTFL) recommend instruction in a modern language occur in the target language at least 90% of the time. Therefore, instruction in modern language classes occur mostly in the target language. Teachers use various instructional strategies which make input comprehensible to support and build students' understanding in the target language.

Alphabetic Modern Languages:

Level 1: French, German, Spanish:

Level 1 Modern Languages are recommended for students in the ninth grade. The goal for Level 1 students is to perform at the Novice High proficiency level across the three modes of communication. Level 1 students demonstrate cultural and intercultural competency in the Novice range. Students must earn two sequential credits in the same language to meet graduation requirements.

Level 1 Honors: French, German, Spanish:

Students enrolled in a Level 1 Honors class perform at the Intermediate Low proficiency level. Enrolling in a Level 1 Honors world language class is the first step toward future success in upper level courses and the pursuit of the Seal of Biliteracy. Students must earn two sequential credits in the same language to meet graduation requirements. Prerequisite: Teacher recommendation.

Level 2: French, German, Spanish:

The goal for Level 2 students is to perform at the Intermediate Low proficiency level across the three modes of communication and demonstrate cultural and intercultural competency in the Intermediate range. Prerequisite: Successful completion of Level 1 of the same language.

Level 2 Honors: French, German, Spanish:

In addition to the Level 2 requirements, the goal for students enrolled in a Level 2 Honors class is to perform at the Intermediate Mid proficiency level. Enrolling in a Level 2 Honors world language class is a step toward future success in upper level courses and the pursuit of the Seal of Biliteracy. Prerequisite: Teacher recommendation.

Level 3 Honors: French, German, Spanish:

The Level 3 Honors program is highly recommended for students who intend to apply for the Seal of Biliteracy and/or enroll in advanced academic world language courses. In addition to Level 3 requirements, the goal for Level 3 Honors students is to perform at the Intermediate High proficiency level. Enrolling in a Level 3 Honors world language class is a step toward future success in upper level courses and the pursuit of the Seal of Biliteracy. Prerequisite: Teacher recommendation.

Level 4 Honors: French, German, Spanish:

Level 4 Honors is highly recommended for students who intend to apply for the Seal of Biliteracy and/or enroll in advanced academic world language courses. The goal for students enrolled in a Level 4 Honors class is to perform at the Advanced Low proficiency level. Students will demonstrate Advanced range cultural and intercultural competencies. Enrolling in a Level 4 Honors world language class is a step toward future success in upper level courses and the pursuit of the Seal of Biliteracy. Prerequisite: Teacher recommendation.

Advanced Placement (AP): French, German, Spanish:

AP world language is recommended for students who demonstrate a minimum of Advanced Low proficiency in an alphabetic modern language and for students who intend to apply for the Honors Seal of Biliteracy. This course is for students who are motivated to intensely study the language in preparation for the Advanced

Placement examination. This course should not be taught in combination with any other world language course. Prerequisite: Teacher recommendation.

Logographic Modern Languages:

Honors Chinese 1:

In addition to Level 1 requirements, more emphasis is placed on character recognition and spontaneous responses rather than prepared responses in Chinese 1 Honors. Enrolling in a Level 1 Honors world language class is the first step toward future success in upper level courses and the pursuit of the Seal of Biliteracy. Students must earn two sequential credits in the same language to meet graduation requirements. Prerequisite: Teacher recommendation.

Honors Chinese 2:

In addition to Level 2 requirements, more emphasis is placed on character recognition and spontaneous responses rather than prepared responses in Honors Chinese 2. Enrolling in a Level 2 Honors world language class is a step toward future success in upper level courses and the pursuit of the Seal of Biliteracy. Prerequisite: Teacher recommendation.

Honors Chinese 3:

Honors Chinese 3 is highly recommended for students who intend to apply for the Seal of Biliteracy and/or enroll in advanced academic world language courses. In addition to Level 3 requirements, students enrolled in a Level 3 Honors class perform at the Intermediate Mid proficiency level. Enrolling in a Level 3 Honors world language class is a step toward future success in upper level courses and the pursuit of the Seal of Biliteracy. Prerequisite: Teacher recommendation.

Honors Chinese 4:

Honors Chinese 4 is highly recommended for students who intend to apply for the Seal of Biliteracy and/or enroll in advanced academic world language courses. The goal for students enrolled in a Level 4 Honors class is to perform at the Intermediate High proficiency level in communication. Students will demonstrate Advanced range proficiency in cultural and intercultural competencies. Enrolling in a Level 4 Honors world language class is a step toward future success in upper level courses and the pursuit of the Seal of Biliteracy. Prerequisite: Teacher recommendation.

Advanced Placement (AP) Chinese:

AP Chinese is recommended for students who demonstrate a minimum of Intermediate High proficiency in the language, and for students who intend to apply for the Honors Seal of Biliteracy. This course is for students who are motivated to intensely study the language in preparation for the Advanced Placement examination. This course should not be taught in combination with any other course. Prerequisite: Teacher recommendation.

Classical Languages:

Classical languages are ancient languages which influenced civilization over an extended period of history. The enduring influence of a classical language on cultural traditions usually produces a large collection of texts. Classical languages provide insight into modern languages and cultures. The instructional focus for a classical language course is the interpretive mode of communication. However, students also develop presentational speaking proficiency and interpretive listening proficiency in the course of study.

Latin 1:

Latin 1 is recommended for students in the ninth grade. Students will perform at the Novice High proficiency level in interpretive reading. Students will perform at the Novice Mid proficiency level in interpretive listening and in presentational writing. Students will communicate at a Novice Low proficiency in presentational speaking. In addition, students will demonstrate cultural and intercultural competency in the Novice range. Students must earn two sequential credits in the same language to meet graduation requirements.

Honors Latin 1:

In addition to the Latin 1 requirements, students in Honors Latin 1 will perform at the Novice High proficiency level in interpretive listening and in presentational writing. Students will communicate at a Novice Mid proficiency in presentational speaking. Students will develop comprehensive analysis and critical thinking skills and use those skills to explore texts. Enrolling in a Honors Latin 1 is the first step toward future success in upper level courses and the pursuit of the Seal of Biliteracy. Students must earn two sequential credits in the same language to meet graduation **requirements. Prerequisite: Teacher recommendation.**

Latin 2:

In Latin 2, students will perform at the Intermediate Low proficiency level in interpretive reading and in presentational writing. Students will perform at the Novice High proficiency level in interpretive listening. Students will communicate at a Novice Low proficiency in presentational speaking. In addition, students will demonstrate cultural and intercultural competency in the Intermediate range. Prerequisite: Successful completion of Latin 1.

Honors Latin 2:

In addition to Latin 2 requirements, students in Honors Latin 2 will perform at the Intermediate Low proficiency level in interpretive listening and in presentational writing. Students will communicate at a Novice High proficiency in presentational speaking. Students will continue to develop comprehensive analysis and critical thinking skills and use those skills to explore texts. Enrolling in a Honors Latin 2 is a step toward future success in upper level courses and the pursuit of the Seal of Biliteracy. Prerequisite: Teacher recommendation.

Honors Latin 3:

Honors Latin 3 is highly recommended for students who intend to apply for the Seal of Biliteracy and/or enroll in advanced academic world language courses. In addition to Latin 3 requirements, students will

perform at the Intermediate Mid proficiency level in interpretive listening and in presentational writing. Students will communicate at an Intermediate Low proficiency in presentational speaking. Students will continue to develop comprehensive analysis and critical thinking skills and use these skills to explore texts in preparation for advanced coursework. Enrolling in a Honors Latin 3 is a step toward future success in upper level courses and the pursuit of the Seal of Biliteracy. Prerequisite: Teacher recommendation.

Honors Latin 4:

Students enrolled in a Level 4 Honors class perform at the Intermediate High proficiency level in interpretive listening and reading and in presentational writing. Students will demonstrate Intermediate Low proficiency in presentational speaking. Students will also demonstrate cultural and intercultural competency in the Advanced range. Students will continue to develop comprehensive analysis and critical thinking skills and use these skills to explore texts in preparation for advanced coursework. Enrolling in Honors Latin 4 is a step toward future success in upper level courses and the pursuit of the Seal of Biliteracy. Prerequisite: Teacher recommendation.

Advanced Placement (AP) Latin:

AP Latin is recommended for students who demonstrate a minimum of Intermediate High proficiency and who intend to apply for the Honors Seal of Biliteracy. This course is for students who are motivated to intensely study the language in preparation for the Advanced Placement examination. Students will translate and complete in-depth analysis of Vergil's Aeneid and Caesar's De Bello Gallico. This course should not be taught in combination with any other course. Prerequisite: Teacher recommendation.

Heritage Languages:

Heritage Language courses are designed for students who may have some degree of proficiency in their heritage language, the heritage language is spoken in their home to some degree, or the language is the language of education in their country of origin.

Heritage Spanish 1:

Students eligible for Heritage Spanish 1 may not be able to fully express their ideas either orally or in writing. This course lays the foundation for literacy in the student's heritage language. Heritage Spanish 1 follows the proficiency standards for Spanish 1 with additional emphasis on the cultural values of diverse Hispanic/Latinx communities. Students develop cultural and intercultural competencies and explore the complexities of identity in various cultural contexts. Upon successful completion of the class, students may progress to Heritage Spanish 2, Spanish 2, or Honors Spanish 2.

Heritage Spanish 2:

Students eligible for Heritage Spanish 2 either Heritage Spanish 2 follows the proficiency standards for Spanish 2 with additional emphasis on literacy across disciplines. Students continue developing cultural and intercultural competencies and exploring the nuances of identity in various cultural contexts. Upon successful completion of the class, students may progress to Spanish 3, or Honors Spanish 3. Prerequisites: successful

completion of Heritage Spanish 1 or demonstration of the appropriate proficiency through an acceptable language proficiency assessment including teacher recommendation.

Pursuant to State Board of Education Rule 0520-1-3-05 (6)(a)3. Foreign Language:

Procedure for documenting the World Language graduation requirement for students who are native speakers of languages other than English is as follows:

Students with secondary transcripts showing coursework in their native language may have those language course credits transferred to their Knox County high school transcript regardless of the native language. For example, a student from China with a secondary transcript showing two years of coursework in Chinese (their native language), may have those two years of Chinese transferred to their Knox County high school transcript and meet the requirements for foreign language.

Students with secondary transcripts indicating only one year of coursework in their native language may have one year of credit in that language transferred to their Knox County high school transcript. The second year of foreign language can be documented "Proficient" on the transcript, either by a qualified examiner or by a KCS Knox County teacher, depending on whether the language is offered by Knox County (see below).

Procedure for determining placement of heritage speakers of other languages in WL classes:

- WL teacher(s) conducts initial interview to determine appropriate Level EOC to administer to the student.
- Student takes appropriate level EOC. (This will usually be the Level 1 EOC.)
- If the student passes the EOC, the student receives "P" for *Proficient* on transcript for the tested level(s); no credit is awarded.
- Teacher obtains a Speaking sample and a Writing Sample from the student.
- Student placement in a WL course will be determined by the WL teacher(s) of the tested language based on the EOC score, the Speaking and Writing Sample, and the initial interview.

***For students with language credits on a transfer transcript, please refer to the *Procedure For Documenting the Foreign Language Graduation Requirement for Students Who Are Native Speakers of Languages Other Than English* above.**

For students whose heritage language is a language credit that is NOT offered by Knox County (or if it is offered in Knox County, but not at the school in which the student is enrolling):

Students may receive world language credits and thus meet the graduation requirement in any of the following ways:

- Have two language credits on their transcript;
- Take two credits of a language other than their native language or English in high school;
- Be assessed by a qualified examiner for intermediate level proficiency in a language. The examiner must complete the Knox County form for Documenting Proficiency. Any level that a student places out of will be entered on the transcript as "Proficient", however NO

credit will be given, and it will not be included in the grade point average. All costs involved with the test are the student's responsibility.

For students whose native language IS offered by Knox County, please follow the steps below:

1. Counselor will coordinate with the Foreign Language teacher who will determine student's proficiency.
2. The Foreign Language teacher will administer the EOC and also assess the student's written and oral production in the language. The teacher will determine the student's proficiency compared to the second-year expectations.
3. After the administration of the EOC, the Foreign Language teacher will return the test to the testing coordinator/designee and share the results with the counselor. The teacher should fill out the KCS form for "Documenting Proficiency for Foreign Language Graduation Requirements" and give it along with the EOC to the counselor. These forms are to be placed in the student's CR.
4. Any level that a student places out of will be entered onto the transcript as "Proficient" by the counselor/registrar. No credit will be given for the course(s) and it will not be included in the grade point average. Example for transcript: "Proficient through the 3rd level of Spanish."
Any student proficient in a language other than English may fulfill the world language requirement by demonstrating proficiency equivalent to level 2 requirements in the language. If the language is offered by Knox County Schools, the student will be required to pass a corresponding EOC exam, which tests proficiency in the three modes of communication, for the level which the student is challenging. If the student is fluent in a language that is not offered by KCS, it is the responsibility of the parent or guardian to arrange (and pay) for the student to pass a proficiency exam by a reputable world language provider or translation service. Students who demonstrate a minimum equivalency of level 2 proficiency in the assessed language will fulfill the graduation requirement; however, credit is not earned. No credit is awarded for proficiency testing.