

CUMBERLAND COUNTY SCHOOLS COURSE CATALOG 2018-2019



Planning is important during registration. The choices you make will determine your classes next year. Each course request is a factor when school officials set budgets for educational needs. Schedule changes will be made based only on graduation requirements or on post-secondary school admission requirements. These changes must be made within ten days of the beginning of each semester.

Revised January 2018; state and local changes may occur after publication.

GRADUATION REQUIREMENTS

English	4 Credits English I- 1 credit English II- 1 credit English III- 1 credit English IV- 1 credit
Mathematics	4 Credits Algebra I- 1 credit Algebra II- 1 credit Geometry- 1 credit Math (see options in catalog)- 1 credit
Science	3 Credits Lab Science (see options in catalog)- 1 credit Biology- 1 credit Chemistry- 1 credit
Social Studies	3.5 Credits World History- 1 credit US History- 1 credit Economics- .5 Personal Finance- .5 US Government- .5
Health & Physical Fitness	1.5 Credits Lifetime Wellness- 1 Credit Physical Education- .5 Credit
Foreign Language	2 Credits* (same language)
Fine Arts:	1 Credit* (see options)
Program of Study	3 Credits in one area
Additional Electives:	Number varies

*May be waived for students to expand program of study.

Total number of credits needed to graduate from CCHS or SMHS is 27 credits.



FINE ARTS

Visual Art I

An introductory class, requiring no prior art background. This course provides hands-on experiences in creating art plus an introduction to art history and art criticism. Students explore drawing and painting. Students will be encouraged to experiment with tools, material, techniques, processes, and ideas.

Visual Art II

This course expands on the skills learned in Visual Arts 1 and is designed for students that excelled in Art 1. This class takes a creative, historical, and critical approach to learning about art. Students work with all types of media to develop drawing and painting skills. Students will produce only original artwork. An art portfolio may be started in this class.

Visual Art III

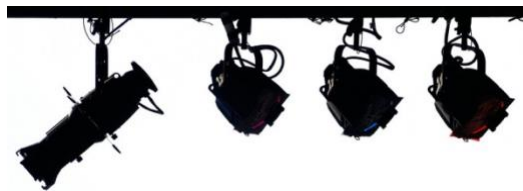
This class is designed for the serious art student who is interested in pursuing an art or art-related career. Visual Art 3 students will expand their portfolio for art scholarships and art shows.

Visual Art IV

This class is designed for the serious art student who is interested in pursuing an art or art-related career. Visual Art 4 students will expand their portfolio for art scholarships and art shows.

AP Art

Students in AP Art work towards developing a comprehensive vocabulary of art. This involves viewing, analyzing, and creating work in a wide variety of media. College credit may be earned in this course through an advanced placement exam. Fees will apply.



Theatre Arts I

The course includes the beginning concepts of drama, involving an introduction to acting, basic technical theater

and design, costumes, makeup, puppetry, storytelling, musical theater, and writing. An introductory survey of theater history, including major playwrights and movements will be included. The purpose of this course is to introduce students to the world of theater while giving them practical experience necessary for audition and production.

Theatre Arts II

Stage craft and set design teaches the techniques of staging including set design and construction, lighting design, and costume design through lecture, demonstration, and hands-on experience.

INSTRUMENTAL MUSIC



Advanced Choir

This class is an advanced group that will focus on period music, advanced vocal development, and will involve multiple performances. The group will be limited in size according to balance. Ensemble participation for band and choir members is expected.

Concert Band

This class is taken the second semester. Rehearsals and Band Camp begin in the summer. Attendance is required at rehearsals, performances, and camp.

General Music

A music course designed to provide instruction to ninth grade students in basic musicianship, music theory, music history, and instrumental performance skills.

Guitar

Students will provide own guitar for this class.

Marching Band

This class is taken the first semester. The marching band performs at football games, participates in marching competitions, and other activities throughout the year. Rehearsals and Band Camp begin in the summer. Attendance is required at rehearsals, performances, and camp.

History of Rock

History of Rock is the study of the origins, characteristics and stylistic development of music dating from the 5th to 21st century, emphasizing the Rock-n-Roll genre of the 1950's to the present.

Piano I

Piano I is an introductory class for beginners who are interested in learning fundamental piano skills. Students will learn to sight-read, play familiar melodies and accompaniments, and learn chord progressions and beginning song writing techniques. Classes meet in a 30

station piano lab in which each member of the class has his/her own 88 key digital piano, headphones, and materials.

Vocal Music I & II

This ensemble is expected to represent the school in community programs. Sight-reading skills will be emphasized.



ENGLISH

English I (9th)

Students study the fundamental skills of grammar, writing, and literature in this course. Emphasis is placed on the following study areas: vocabulary development, spelling, grammar usage, sentence structure, basic writing skills, general literacy, and use of reference tools through writing and computer technology. The curriculum is designed to aid students in successful completion of the state mandated English I End of Course examination.

Honors English I (9th)

English I honors offers a combination of advanced grammar and composition skills along with a survey study of literature including selections from American, English, and world literature. The curriculum is designed to aid students in successful completion of the state mandated English I End of Course examination.

English II (10th)

English II begins with a short review of basic elements of grammar and introduces those advanced elements of grammar not completed in English Composition skills in usage, punctuation, and sentence structure are reinforced through writing assignments and comprehensive grammar exercises designed to aid students in successful completion of the state mandated English II End of Course examination.

Honors English II (10th)

Students can perform at a rigorous academic level in order to master the reading, analysis, and synthesis of complex texts with understanding and enhancement. The curriculum is designed to aid students in successful completion of the state mandated English II End of Course examination.

English III (11th)

In English III the student reinforces his/her prior knowledge of writing mechanics through a variety of writing styles, with an emphasis placed upon

argumentative, analytical, and narrative writing. Emphasis is also placed upon strengthening vocabulary skills, including but not limited to academic vocabulary. Writing focus includes constructed response, reason, example, description, incident, and point of view. The curriculum is designed to aid students in successful completion of the state mandated English III End of Course examination.

Honors English III (11th)

Students can perform at a rigorous academic level in order to master the reading, analysis, and synthesis of complex texts with understanding and enhancement. The curriculum is designed to aid students in successful completion of the state mandated English III End of Course examination.

AP English Language & Composition

AP English Language and Composition is a rigorous, year-long course that provides students with a challenging learning experience equivalent to an introductory year of college rhetoric and composition course work. Students enrolling are expected to have mastered skills in reading and writing standard English and should assume considerable responsibility for the amount of reading and writing they do. The emphasis of the course is the analytical and argumentative writing that forms the basis of academic and professional communication, as well as the personal and reflective writing that fosters the development of writing facility in any context. Students will become more effective and confident writers in their college courses across the curriculum and in their professional and personal lives. Students who score a 3 or above will earn college credit. Fees will apply.

AP English Literature & Composition

College English Composition is a rigorous, year-long course that provides students with a challenging learning experience. Students must meet current college guidelines on the ACT. Students are prepared to take the AP English Literature and Composition Examination. Students who score a 3 or above will earn college credit. Fees will apply.

English IV (12th)

This course includes the study of writing skills and grammar usage. Emphasis is placed on vocabulary. World and English literature selections are covered.

This credit satisfies the requirement for a student's fourth English course.

Honors English IV (12th)

This course includes a brief review of grammar usage with intensive study and practice of writing skills, particularly critical or evaluative writing. It also includes a survey of English and World literature (all literary genres).

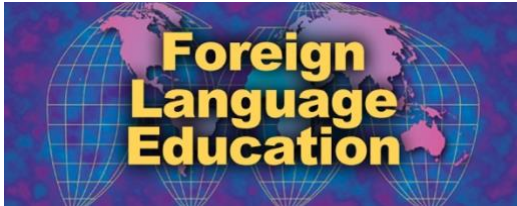
Dual Enrollment Composition I & II (12th)

College English Composition is a rigorous course that provides students with a challenging learning experience.

Students must meet current college guidelines on the ACT. Students will earn college credit through dual enrollment with the successful completion of this class. Fees will apply.

English as a Second Language

Instruction starts where the student needs to begin, perhaps with basic survival skills. Instruction in standard English continues in the areas of speaking, reading, writing, and understanding spoken English. American cultural practices, customs and more are discussed. Non-English speakers may get 2 credits in English.



FOREIGN LANGUAGE

French I

Students will be able to understand everyday questions and simple conversations. Students will use the four skills of foreign language: listening, speaking, reading, and writing. Students will be exposed to French costumes, history and culture.

French II

This course is a continuation of the material explored in French I. Students will be able to understand everyday questions and simple conversations. Students will use the four skills

of foreign language: listening, speaking, reading, and writing. Students will be exposed to French costumes, history and culture.

French III

Prerequisite: Teacher recommendation

Students in French III continue to hone speaking and listening skills. Classroom work continues to emphasize these skills with a wide variety of activities. Much of the class is conducted in French. Speaking skills are emphasized much more than in French I and II. A novel is read in French to expand comprehension of the written language and to introduce French literature.

Spanish I

Students completing this course are able to understand questions, conversations, and instructions in Spanish, and study Spanish using the four skills of language learning, listening, speaking, reading, and writing. Emphasis is placed on vocabulary and grammatical structure. Spanish culture and Spanish-speaking countries are also reviewed.

Spanish II

Students are able to understand questions, conversations,

and instructions in Spanish, and study Spanish using the four skills of language learning, listening, speaking, reading, and writing. Emphasis is placed on vocabulary and grammatical structure. Spanish culture and Spanish-speaking countries are also reviewed.

Spanish III

Prerequisite: Teacher recommendation

Students should successfully complete this course prior to taking Spanish 4. This course enables the student to reinforce the Oral and writing skills acquired in Spanish. Applying and understanding expanded vocabulary, and increasing the speaking, reading and writing skills are included.

Spanish IV

This course is a continuation of Spanish 3 and enables the student to reinforce the oral and writing skills acquired in the previous semester of Spanish. Applying and understanding vocabulary and increasing their speaking, reading and writing skills are included.

HEALTH & PE



Lifetime Wellness

This class is a combination of classroom work and physical fitness. The course content consists of seven inter-related strands which include the following: nutrition, personal fitness and related skills, mental health, disease prevention and control, substance use and abuse, sexuality and family life, and first aid.

Physical Education I

This course provides an opportunity for students to participate in and learn the rules and strategies of a variety of individual and dual sports such as bowling, jump roping, tennis, and badminton. This course will also include an opportunity for students to participate in and learn a variety of fitness activities that promotes individual responsibility for optimal well-being.

Physical Education II

This course is designed to teach the fundamental skills, techniques and safety aspects of weight training and conditioning. Students will use the equipment in the weight room and also engage in strenuous physical conditioning such as running.

PE Girls Softball

This course is designed for the highly competitive athlete. Students will study rules, strategies, and training techniques of softball. . This class will also include appropriate weight lifting.

PE Baseball

This course is designed for the highly competitive athlete. Students will study rules, strategies, and training techniques of baseball. This class will also include appropriate weight lifting.

PE Boys Basketball

This course is designed for the highly competitive athlete. Students will study rules, strategies, and training techniques of basketball. This class will also include appropriate weight lifting.

PE Girls Basketball

This course is designed for the highly competitive athlete. Students will study rules, strategies, and training techniques of basketball. This class will also include appropriate weight lifting.

Weight Lifting

This course introduces basic weight lifting and cardiovascular endurance techniques.

Weight Lifting Football

This course is designed for the highly competitive athlete. Students will study rules, strategies, and training techniques of football. This class will also include appropriate weight lifting.



MATHEMATICS

Algebra IA

This is the study of algebraic expressions, equations and inequalities involving integers, rational expressions, graphing, linear equations, rational and irrational numbers.

Algebra 1B

Algebra 1B is a continuation of Algebra IA and will include factoring of polynomials, radical expressions, quadratics, and an introduction to trigonometry. End of course testing is mandated by the state.

Honors Algebra I

This course will include factoring of polynomials, radical expressions, quadratics, and an introduction to trigonometry.

End of course testing is mandated by the state. Honors standards and expectations will apply.

Geometry

Topics covered in this course consist of both plane and solid geometry. The course includes a study of points, lines, and planes and their relationships. Emphasis is placed on geometric skills, and the application of geometric concepts to life situations.

Honors Geometry

All of the topics covered in Unified Geometry are discussed in this course, but in much greater depth. In addition to learning geometric concepts and their applications, emphasis is placed on geometric proofs to improve reasoning skills and abstract thinking. Honors standards and expectations will apply.

Algebra 2A

This course includes solving systems of equations and inequalities, matrices, radical and rational expressions, graphing conics, polynomial functions, probability, exponential and logarithmic functions, sequences and trigonometric functions.

Algebra 2B

Algebra 2B is a continuation of Algebra 2A. This course includes solving systems of equations and inequalities, matrices, radical and rational expressions, graphing conics, polynomial functions, probability, exponential and logarithmic functions, sequences and trigonometric functions. End of course testing is mandated.

Honors Algebra 2A

This course includes solving systems of equations and inequalities, matrices, radical and rational expressions, graphing conics, polynomial functions, probability, exponential and logarithmic functions, sequences and trigonometric functions. Honors standards and expectations will apply.

Honors Algebra 2B

All of the topics covered in Algebra 2 are covered, as well as additional topics such as circular functions, complex numbers, and vectors. Honors standards and expectations will apply.

Bridge Math

Students who take the ACT their junior year and score less than a 19 in Math can take the Bridge Math course their senior year. In SAILS, these students can complete the college Learning Support Math program, preparing them for a college-level math course, which will give them a jump-start on their college career.

Dual Enrollment College Algebra

College Algebra is a course designed for those students who need additional preparation in algebra before taking higher level mathematics (i.e. pre-calculus) or to meet a high school or college math requirement. Fees will apply.

Dual Enrollment Calculus I

This course deals with the study of limits, derivatives, applications of derivatives, integrals, applications of definite integrals, logarithmic, exponential, hyperbolic, and trigonometric functions, improper integrals, infinite series and analytic geometry. College credit will be earned with the successful completion of this course. Fees will apply.

Dual Enrollment Calculus II

This is a continuation of Calculus I. College credit will be earned with the successful completion of this course. Fees will apply.

Dual Enrollment Statistics

This course is one semester of an introductory non-calculus based college statistics course.

An introductory statistics course, similar to the Statistics course, is typically required for majors such as social sciences, health sciences, and business. Science, engineering, and math majors usually take an upper-level calculus-based course in statistics. College credit will be earned with the successful completion of this course. Fees will apply.

Dual Enrollment Pre-Calculus

This course emphasizes a multi representational approach to calculus with concepts, results, and problems being expressed geometrically, numerically, analytically, and verbally. College credit will be earned with the successful completion of this course. Fees will apply.



SCIENCE

Agriscience

Agriscience consists of standards to prepare students for biology. The content area covers ecology, biological processes, sexual and asexual reproduction and a study of the chemical and physical laws that govern life. This course helps students understand the important role science serves as the agricultural industry. Satisfies lab science requirement.

Honors Agriscience

Agriscience consists of standards to prepare students for biology. The content area covers ecology, biological

processes, sexual and asexual reproduction and a study of the chemical and physical laws that govern life. This course helps students understand the important role science serves as the agricultural industry. Satisfies lab science requirement. Honors standards and expectations will apply.

Biology I

Biology I focuses on the organizational levels of all living things. The study includes the chemical make-up of life, the cell, tissues and organ systems, genetics, photosynthesis and respiration, diversity, and biological interactions. Lab work is an integral part of this class. End of course testing is mandated.

Honors Biology I

This class focuses on the same topics as the Biology 1 course; however, this class requires more reading, writing, and analytical thinking skills. End of course testing is mandated. Honors standards and expectations will apply.

Honors Biology II

provides an in-depth view of living things while exploring cellular functions, interdependence, genetics, biotechnology, evaluation, microbiology, comparative anatomy/physiology and botany. Students will develop deeper understanding through inquiry activities and laboratory work. Honors standards and expectations will apply.

AP Biology

Biology 2 involves a deeper study into cell biology. Chemical structure and how it affects cell function is discussed. Photosynthesis, respiration, reproduction, and gene regulation are presented. Dissection is used in a brief study of vertebrate comparative anatomy. This class requires more reading, writing, and analytical thinking skills. College credit may be earned with a 3 or better on the advanced placement exam. Fees will apply.

Chemistry I

Chemistry 1 is a laboratory science course in which students investigate the composition as well as the physical and chemical changes of matter. Students use science process skills to study the fundamental structure of atoms, the way atoms combine to form compounds, and the interactions between matter and energy. End of course testing is mandated.

Honors Chemistry I

The emphasis in this course is placed on the mathematical and scientific skills required of those students who will major in mathematical or scientific fields. It is recommended that this course be taken by those students who plan to major in Sciences, Health Sciences careers, and Engineering. End of course testing is mandated. Honors standards and expectations will apply.

Honors Chemistry II

This course focuses on characteristics of solutions including acids and bases. Gas laws describe how colligative

properties differ in solutions. Explaining and solving problems involving heat of reaction, heat of formation, heat of combustion, entropy, and enthalpy explain and balance redox reactions.

AP Chemistry

Students will receive AP Chemistry credit upon successful completion of the AP Chemistry exam. This course covers concepts to enable the student to take the AP Exam. Topics include atomic theory, molecular theory, reactions, gases, thermo chemistry, oxidation-reduction, stoichiometry, etc. Lab work is vital to the course. Students will need to be able to work after school. Students will earn college credit by scoring a 3 or higher on the AP exam. Fees will apply.

Honors Physics

Honors Physics is a more advanced study of Physics. The student will be involved in independent research, projects, and competitions. Students are expected to apply information, calculations, and higher level thinking skills to demonstrate a more in-depth understanding of Physics. Trig functions are applied to Physics problems.

Honors Anatomy & Physiology

An in-depth, lab-based analysis of the correlation between structure and function of the human body in health and disease. Medical terminology is a focus in the course. This course is recommended for students intending to major in pre-medicine.



SOCIAL STUDIES

Ancient History

This course will focus on the history of times long past. Students will develop an understanding of the relationships among persons and places, and an overall era's relationship with those proceeding and preceding it in the history of our world before the Renaissance.

World History

World History is a survey course covering the events and people from ancient to modern times.

Honors World History

World History is a survey course covering the events and people from ancient to modern times. Honors standards and expectations will apply.

U.S. History

U.S. History is a chronological survey of the people and events that have shaped our nation's history from Reconstruction to modern times. End of Course testing is mandated.

Honors U.S. History

U.S. History is a chronological survey of the people and events that have shaped our nation's history from Reconstruction to modern times. End of Course testing is mandated. Honors standards and expectations will apply.

AP U.S. History

This course provides an opportunity for high school students to take a college-level course in high school. Students will prepare to take the Advanced Placement exam in U.S. History for possible college credit. Students must be prepared for an intensive and comprehensive college-level course and should have advanced analytical, writing, and verbal skills. Students scoring 3 or better may earn college credit.

Psychology

Psychology is the science of the mind and the scientific study of the way the human mind works and influences behavior, or the influence of the particular person's character on behavior.

Sociology

Sociology is the study of groups of people and their interrelationships with society.

U.S. Government

U.S. Government is a study of the structure of government in the United States. The course examines the how and why of the American political system. Students apply their knowledge and personal experience to examine some of the basic problems facing our nation today.

Economics

Economics is a survey of the free-enterprise system and the role of consumers. Topics that will be covered are taxes, money and banking, supply and demand, inflation, unemployment, competition, types of business, the stock market and the global economy.

Honors Economics

Economics is a survey of the free-enterprise system and the role of consumers. Topics that will be covered are taxes, money and banking, supply and demand, inflation, unemployment, competition, types of business, the stock market and the global economy. This is a rigorous course that will require additional reading, writing, and analytical skills.

Personal Finance

Personal Finance is a course designed to inform students how individual choices directly influence occupational goals and future earnings potential. Real world topics covered will include, money management, spending and credit, as well as saving and investing. Students will design personal and household budgets; simulate use of checking and saving accounts; demonstrate knowledge of finance, debt and credit management; and evaluate and understand insurance and taxes.

Honors Personal Finance

Personal Finance is a course designed to inform students how individual choices directly influence occupational goals and future earnings potential. Real world topics covered will include, money management, spending and credit, as well as saving and investing. Students will design personal and household budgets; simulate use of checking and saving accounts; demonstrate knowledge of finance, debt and credit management; and evaluate and understand insurance and taxes. Honors standards and expectations will apply.

COURSE DESCRIPTIONS

Career & Technical Education

ADVANCED MANUFACTURING

Principles of Manufacturing

This course is 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. Content covers basic quality principles and processes, blueprints and schematics, and systems.

TCAT Electromechanical Technology I, II

Electronic Technicians apply electronic theory, principles of electrical circuits, electrical testing procedures, engineering math and physics. These concepts and related knowledge are used to lay out, build, test, troubleshoot, repair and modify development and production electronic equipment.

TCAT Machining Technology I, II

The work of machine tool operators, machinists, tool and die makers, industrial maintenance personnel and those in related occupations requires skill in machining metal by such machine tools as milling machines, lathes, grinders, drill presses, CNC milling machines, EDM machines and the ability to use precision measuring tools. The course in machine shop is designed to give students experience on a variety of machine tools similar to those on which they will work after graduation. Instruction is given in related blueprint reading and math, precision measuring, and such basic metallurgy as properties of metals, their workable characteristics, best treatment of metals, and relative hardness.

TCAT Mechatronics I, II

This program of study is designed for students Interested in becoming a Mechatronics Technician, Mechanical Engineering Technician, Robotics Technician, or Mechatronics Engineer. Course content focused on the components of manufacturing systems, collection and analysis of quality data, electronics, mechanics, fluid power systems, computers and control systems, industrial robotics and their programming along with technical documentation and troubleshooting.

TCAT Welding I, II

The student will be involved in welding theory, blueprint reading and welding safety. In the shop, the student will be involved in all phases of the welding field. Learning to weld in all positions (flat, horizontal, vertical, and overhead). This includes aluminum, mild steel, stainless steel, pipe and sheet.



Industry Certifications Advanced Manufacturing

NIMS Certification
Product Certification
Siemens Certification



AGRICULTURE, FOOD, & NATURAL RESOURCES

Agriculture Power & Equipment

This course places emphasis on lab activities involving small engines, tractors, and ag equipment. Standards address navigation, maintenance, repair, and overhaul of electrical motors.

Agriscience

Agriscience consists of standards that prepare students for biology, subsequent science courses and post-secondary pursuits. The content area includes ecology, biological processes, sexual and asexual reproduction and a study of the chemical and physical laws that govern life processes. This course helps students understand the important role of the agricultural science industry moves in the 21st century.

Agriscience-Honors

Agriscience consists of standards that prepare students for biology, subsequent science courses and post-secondary pursuits. The content area includes ecology, biological processes, sexual and asexual reproduction and a study of the chemical and physical laws that govern life processes. This course helps students understand the important role of the agricultural science in the 21st century.

*Either class (Agriscience or Agriscience- Honors) count towards the first class for any Program of Study within this field

Greenhouse Management

Greenhouse Management is an applied-knowledge course designed to prepare students to manage greenhouse operations. This course covers principles of greenhouse structures, plant health and growth, growing media,

greenhouse crop selection and propagation, and management techniques. It provides students with the technical knowledge and skills needed to prepare for further education and careers in horticulture production.

Introduction to Plant Science

This class is taught for Dual Credit. Topics covered will include plant anatomy & physiology, reproduction, pest management, plant nutrition and culture, cropping and growing systems. Greenhouse growing structure, human relations and personnel management. Fees may apply.

Landscape and Turf Science

The course is designed to provide challenging academic standards and relevant technical knowledge and skills needed for further education and careers in landscape design, floral design, and turf grass management. Content includes site analysis and planning, principles of design, and plant selection and care techniques.

Large Animal Science

This is an applied course in veterinary and animal science for students interested in learning more about becoming a veterinarian, vet tech, vet assistant, or pursuing a variety of scientific, health, or agriculture professions.

Principles of Agriculture Mechanics

This is an intermediate course introducing students to basic skills and knowledge in construction and land management. Topics include project management, basic engine and motor mechanics, land surveying, irrigation and drainage, agriculture structures, and basic metalworking techniques.

Small Animal Science

Small Animal Care contains objectives to prepare students for careers in managing and caring for specialty and companion animals. As our population raises more specialty and companion animals for production purposes and personal value, careers that work with these animals in a safe environment will continue to expand.

Veterinary Science

Veterinary Science challenges students to use advanced technologies and medical treatments to maintain the health of animals. The animal health industry continues to grow in importance and prominence as more people purchase animals for pleasure and sustenance.

Industry Certifications in Agriculture

Commercial Pesticide Certification
Animal Science Certification



ARCHITECTURE & CONSTRUCTION

Fundamentals of Construction

This course is a prerequisite for the Construction Trades. It will provide a basic introduction to the construction industry. Course content includes leadership development, safety, math related to the construction trades, hand-tool and power-tool operation, blueprint reading, and rigging. The emphasis of this entry-level course is on identification and recognition.

Structural Systems I

Prerequisites: Fundamentals of Construction
This course will introduce students to basic skills and knowledge related to residential and commercial carpentry. Topics covered include wood, metal, and concrete building materials; fasteners; hand and power tools; fabrication based on construction plans; and framing of platform and post-and-beam structures in both wood and metal. This course gives students an introduction to the skill and knowledge base typically required for apprentice carpenters.

Structural Systems II

Prerequisite- Structural Systems I,
This course offers an opportunity for students who have demonstrated a motivated interest in construction to learn and improve upon their basic skills. Layout, marketing, and job-site organizational skills are emphasized.

TCAT Building Construction

This program provides students with basic training in building homes. The training is based upon fundamental construction techniques with an emphasis on energy efficiency and sustainability.

TCAT Heating, Ventilation, Air Conditioning (HVAC)

This program provides the student with entry-level skills needed in a variety of domestic and commercial service areas.

Industry Certifications Architecture & Construction

HVAC Excellence Certification
NCCER Core Curriculum Certification
NCCER Construction Technology Certification



Arts, Audio/Visual Technology & Communications

Digital Arts & Design I

This course in the Arts, A/V Technology & Communications cluster is for students interested in art and design professions. The primary aim of this course is to build a strong understanding of the principles and elements of design and the design process. Students will learn to utilize industry tools to conceptualize and create print and video communications for targeted audiences. Students will acquire basic skills in computer design, photography and video creation.

Digital Arts & Design II

This is a course that builds on the basic principles and the design process learned in Digital Arts & Design I. Students will learn to perform advanced software operations to create photographs and illustrations of increasing complexity. Students will employ design principles and use industry software to create layouts for a variety of applications.

Digital Arts & Design III

This is the third course in the Digital Arts & Design program of study. Applying design skills developed in prior courses, students will expand their creative and critical thinking skills to create comprehensive multimedia projects and three-dimensional designs. Upon completion of this course, students will be able to use industry-standard software to create multimedia projects.

Foundations of Fashion Design

This course introduces students to the rich history of the fashion industry and the basic design principles that are

integral to its operation Fashion industry, elements and principles of design, textile history and composition, as well as basic construction principles.

Fashion Design

This is an applied-knowledge course intended to prepare students to pursue careers in the fashion industry. Building on the knowledge acquired in Foundations of Fashion Design.

Visual Art I

Properties of media are used in drawing, painting, and or sculptures are identified. Different media tools are used

BUSINESS MANAGEMENT

BUSINESS MANAGEMENT & ADMINISTRATION

Accounting I

Accounting I introduces concepts and principles based on a double-entry system of maintaining the electronic and manual financial records for a sole proprietorship, a partnership, and a corporation. It includes analyzing business transactions, journalizing, posting and preparing worksheets and financial statements. (This course provides access to a computerized workstation for each student to complete financial applications using accounting and spreadsheet software.)

Advanced Computer Applications

This course prepares students to continue postsecondary training in business-related programs, and provides advanced training for students pursuing a career in administrative and information support.

Business Communications

This course is designed to develop students' effective oral and electronic business communication skills. This course develops skills in multiple methods of communications, including social media, as well as electronic publishing, design, layout, composition, and video conferencing.

Business Management

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, and equipment.

Computer Applications

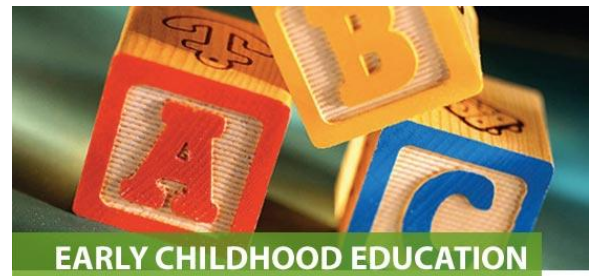
This course is a foundational course intended to teach students the computing fundamentals and concepts involved in the use of common software applications. Upon completion of this course, students will gain basic proficiency in word processing, spreadsheets, databases, and presentations.

Introduction to Business & Marketing

Introduction to Business and 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.

Industry Certifications in Business

Microsoft Office Specialist, Expert, or Master Certification



EDUCATION & TRAINING

Fundamentals of Education

This 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.

Teaching as a Profession I

This course covers the components of instruction, teaching strategies, types of assessments, student learning, special populations, and educational technology.

Teaching as a Profession II

This course is an applied knowledge course for students interested in learning more about becoming a teacher, school counselor, librarian, or speech-language pathologist. This covers classroom management, concepts of higher order thinking, differentiating instruction, and strategies of effective classroom planning.



FINANCE

Accounting I

Accounting I introduces concepts and principles based on a double-entry system of maintaining the electronic and manual financial records for a sole proprietorship, a partnership, and a corporation. It includes analyzing business transactions, journalizing, posting and preparing worksheets and financial statements. (This course provides access to a computerized workstation for each student to complete financial applications using accounting and spreadsheet software.)

Accounting II

This 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.

Can be taken as Dual Accounting for college credit. Fees may apply.

Introduction to Business & Marketing

This course gives students an overview of the Business Management and Administration, Marketing, and Finance career clusters. 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.



GOVERNMENT & PUBLIC ADMINISTRATION

Principles of Public Service

This course is a foundational course in the Public Management and Administration program of study. This course covers fundamental philosophies of constitutional government in the US as well as basic principles of public management and administration, including history and development, organizational structures, and modern functions.

Public Law & Budgeting

This course covers advanced topics such as laws and regulations affecting business operations of government, government funding sources, and budgeting practices, in addition to providing students with the opportunity to develop an original proposal for a community initiative that will involve ongoing engagement with local citizens and officials.

Public Management & Administration

This course covers basic organizations and management principles of public and nonprofit organizations, including standard policies and procedures, emerging trends, community planning, and funding and budgeting.



HEALTH SCIENCE

Anatomy & Physiology

This course is designed for the student to develop an understanding of the human body in health and disease. Medical terminology is a focus of the course. This course is recommended for any student who plans to study a professional health career (including, but not limited to, dental careers, medicine, physical therapy, occupational therapy, nursing or nutrition).

Cardiovascular

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 the anatomy and physiology of the heart and be knowledgeable about both invasive and non-invasive cardiovascular procedures.

Diagnostic Medicine

Prerequisite: Health Science Education

Diagnostic Medicine creates a picture of an individual's health status at a single point in time. This could include the following careers and career areas: audiologist, cardiology, imaging, medical laboratory, radiography, nuclear medicine, stereotactic radiosurgery, cytotechnology, clinical laboratory technician, pathologists, medical physician, and histotechnologist.

Emergency Medical Services

This course is designed to prepare students to pursue careers in the fields of emergency medicine. Upon completion of this course, proficient students will be able to identify careers and features of the EMS systems and define the importance of workforce safety and wellness.

Health Science Education

This course is an introduction to broad standards that serve as a foundation for health care professions. Units included are academics in health care, communications systems, legal responsibilities, ethics, teamwork, and safety practices. Biweekly medical terminology quizzes are administered throughout the semester.

Medical Terminology

This course will develop a working knowledge of the language of health professions. Understanding and interpreting medical language as it relates to the care and well-being of a patient will be the primary focus. This course can be taken for Dual Enrollment. Fees may apply.

Medical Therapeutics

Prerequisite: Health Science Education This course provides knowledge and skills to maintain or change the health status of an individual over time. It includes hands-on activities of patient care. This includes careers such as dental, dietetics, medical assistance, home

health, nursing, pharmacy, respiratory, social work, and others. After completion of this course, students may apply to enroll in clinical internship class. Use of correct medical terminology is stressed daily.

Nursing Education

Nursing Education is a capstone course designed to prepare students to pursue careers in the field of nursing. Upon completion of this course, a proficient student will be able to implement communication and interpersonal skills, maintain residents' rights and independence, provide care safely, prevent emergency situations, prevent infection through infection control, and perform the skills required of a nursing assistant. Students are eligible to take the certification examination as a Certified Nursing Assistant (CNA). Fees may apply.

Industry Certifications Health Science

EKG Certification

Emergency Medical Responder Certification

Certified Nursing Assistant

Certified Clinical Medical Assistant



HOSPITALITY & TOURISM

Culinary Arts I

This introductory course prepares students for gainful employment and/or entry into postsecondary education in the food production and service industry. Content provides students the opportunity to acquire marketable skills by examining both the industry and its career opportunities and by developing food preparation and service and interpersonal skills. Laboratory facilities and experiences, which simulate commercial food production and service operations, offer school-based learning opportunities.

Culinary Arts II

Prerequisite: Culinary Arts I

This course prepares students for gainful employment and/or entry into postsecondary education in the food production and service industry. Content provides students the opportunity to acquire marketable skills by demonstrating the principles of safety and sanitation, food preparation skills, and teamwork to manage an environment conducive to quality food production and service operations. Laboratory facilities and experiences, which simulate commercial food production and service

operations, offer school-based learning and work-based learning opportunities.

Culinary Arts III Baking & Pastry

Prerequisite: Culinary Arts I & II

This course serves as a capstone course as it prepares students for gainful employment and or entry into postsecondary education in the food production and service industry. Content provides students the opportunity to apply the marketable culinary arts skills they have acquired by assuming increasingly responsible positions including participation in a cooperative education experience. There is a \$50 lab fee for this course. Dual college credit is available for students who complete course requirements.

Culinary Arts IV

Culinary Arts IV is the capstone course in the *Culinary Arts* program of study intended to prepare students for careers such as personal chef, caterer, executive chef, and food and beverage manager. Course content covers the components of commercial kitchen safety and sanitation, food presentation, bakeshop preparation skills, sustainability practices, professionalism, and business opportunities.



HUMAN SERVICES

Family Studies

Course topics include 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

Introduction to Human Studies

This course is a foundational course for students interested in becoming a public advocate, social worker, dietician, nutritionist, counselor, or community volunteer. Understanding of human needs, overview of social

services, career investigation, mental health, and communication are the focus.

Nutrition Across the Lifespan

This is an introductory course designed to give students the opportunity to learn about food preparation in the home kitchen as well as aspects of human nutrition. Foods labs are conducted regularly to give students exposure to kitchen equipment and food preparation techniques.

Lifespan Development

This course prepares students to understand the physical, social, emotional and intellectual growth and development of individuals throughout the lifespan. Students will engage in experiences such as observations, job a focus on principles of food science, advanced nutrition concepts, and diet related diseases. Experiments with food are conducted frequently as well as foods labs to demonstrate advanced food preparation techniques. A supply charge of \$30.00 is required for the purchase of food and supplies for the labs conducted in conjunction with this course.

Psychology

Psychology is the science of the mind and the scientific study of the way the human mind works and influences behavior, or the influence of the particular person's character on behavior

Sociology

Sociology enables the student to engage in the exploration of people and their lives in groups and to gain knowledge of human social behavior.



INFORMATION TECHNOLOGY

Coding I

This 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, students proficient in programming and logic can solve problems by planning multistep procedures. They are able to write, analyze, review, and revise programs, converting detailed information from

workflow charts and diagrams into coded instructions in a computer language.

Coding II

This course 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.

Computer Science Foundations

This is a course intended to provide students with exposure to various information technology occupations and pathways such as Networking Systems, Programming and Software Development, and Web Design. 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.

Computer Systems

This course is an intermediate course designed to prepare students with work-related skills and aligned certification in the information technology industry. Content provides students the opportunity to acquire knowledge in both theory and practical applications pertaining to hardware, operation systems, safe mode, command prompt, security, networking printers, and customer service management.

Cybersecurity I, II

The *Cybersecurity* program of study offers a sequence of courses that provides coherent and rigorous content aligned with challenging academic standards and relevant technical knowledge and skills needed to prepare for further education and cybersecurity-related careers in the Information Technology career cluster. Students will develop knowledge in security integration, application of cybersecurity practices and devices, ethics, and best practices management. The fundamental skills in this program covers 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.

Networking

This course is designed to emphasize the conceptual and practical skills necessary to design, manage, and diagnose network hardware and software. Proficient students will identify types of networks, understand layers of the open systems interconnection model, prevent security risks, and apply troubleshooting theory to the successful execution of networking tasks.

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

Website Development

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

Industry Certifications Information Technology

Comp TIA IT Fundamentals Certification

Comp TIA A+ Certification

Comp TIA Security +

CIW Web Design Specialist



Law, Public Safety, Corrections and Security

LAW, PUBLIC SAFETY, CORRECTIONS, & SECURITY

Court Systems & Practices

This course will identify careers in legal and correctional services, evaluate legal documents as they pertain to the rights of citizens outlined in the US Constitution, and analyze the criminal court system process from arrest to parole.

Criminal Justice I

This course serves as a comprehensive survey of how the law enforcement, legal, and correctional systems interact with each other in the United States. 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.

Criminal Justice II

This course is designed to cover the initial crisis scenario management to arrest, transport, trial, corrections, procedures, as well as laws governing the application of justice in the US are examined in detail, with special emphasis on the best practices and professional traits required of law enforcement and legal professions.

Criminal Justice III

This is the final 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.

Principles of Law, Corrections, and Security

This introductory course is designed to prepare students to pursue careers in the field of law enforcement, legal services, corrections, and security. A proficient student will be able to identify careers in these fields, summarize the laws that govern the application of justice, and draw key connections between the history of the criminal justice system and the modern legal system.



MARKETING

Introduction to Business & Marketing

Introduction to Business and Marketing is 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.

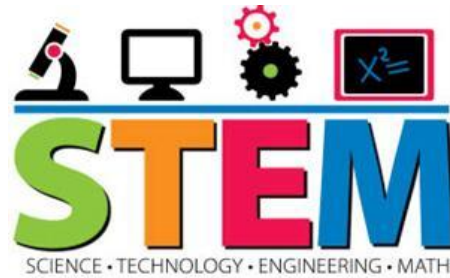
Marketing and Management I

This 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.

Marketing & Management II

Advanced Strategies are studied in marketing concepts and principles used in management. Students will examine the challenges, responsibilities, and risks managers face in

today's workplace. Subject matter includes finance, business ownership, risk management, marketing information systems, purchasing, promotion, and human resource skills.



STEM

Engineering Design I

This course covers essential knowledge, and concepts required for postsecondary engineering and technology fields of study. Students will learn what the various engineering disciplines, as well as admissions requirements for postsecondary engineering and engineering technology programs are in Tennessee.

Engineering Design II

This course covers knowledge, skills, and concepts required for postsecondary engineering and technology fields of study. Students will distinguish 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 economics analysis, follow the steps in the engineering design process to complete a team project, and effectively communicate design solutions to others.

Engineering Practicum

This course is intended to provide students with the opportunity to apply the skills and knowledge learned in previous Engineering courses within a professional, working environment. In addition to developing an understanding of the professional and ethical issues encountered by engineers and technologies in the workplace, students learn to refine their skills in problem solving, research, communications, data analysis, teamwork, and project management.

Principles of Engineering & 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.

Industry Certifications STEM

Certified Solidworks Associate Academic

11-12th Grades



TRANSPORTATION, DISTRIBUTION & LOGISTICS

Aviation I: Principles of Flight

Principles of Flight builds on the fundamental knowledge and skills learned in Introduction to Aerospace while teaching students the essential competencies needed for flight under normal conditions. Upon completion of this course, proficient students will be able to apply knowledge, skills, and procedures in a variety of simulated flight environments.

Aviation II: Advanced Flight

While continuing to build upon the knowledge, skills, and competencies acquired in Introduction to Aerospace and Aviation I, students in Aviation II will receive rigorous instruction in preparation to take the Federal Aviation Administration (FAA) Private Pilot written exam.

Introduction to Aerospace

This course is a comprehensive foundational course for students interested in pursuing careers in aviation. This course covers the basic principles governing flight and the regulation of flight that every aviation professional must know regardless of his or her occupation—as a pilot or an engineer, a salesperson or a specialist, a mechanic or a statistician.

Maintenance & Light Repair I,

The Maintenance and Light Repair I course prepares students for entry into Maintenance and Light Repair II. Students explore career opportunities and requirements of a professional service technician. Content emphasizes beginning transportation service skills and workplace success skills. Students study safety, tools, equipment, shop operations, basic engine fundamentals, and basic technician skills.

Maintenance & Light Repair II,

This course prepares students for entry into Maintenance and Light Repair III. Students study automotive general

electrical systems, starting and charging systems, batteries, lighting, and electrical accessories. Upon completing all of the Maintenance and Light Repair courses.

Maintenance & Light Repair III,

The Maintenance and Light Repair III Course prepares students for entry into Maintenance and Light Repair IV. Students study suspension and steering systems and brake systems. Students will service suspension and steering systems and brake systems.

Maintenance & Light Repair IV,

The Maintenance and Light Repair IV course prepares students for entry into the automotive workforce or into post-secondary training. Students study and service automotive HVAC systems, engine performance systems, automatic and manual transmission/ transaxle systems, and practice workplace soft skills. Upon completing all of the Maintenance and Light Repair courses, students may enter automotive service industry as ASE Certified MLR Technician.

Unmanned Aerial Systems I

Basic understanding of the equipment and safe operating procedures of unmanned aerial systems.

Unmanned Aerial Systems II

A more in depth version of unmanned aerial systems and understanding the technology within this chosen industry.

Industry Certifications Transportation, Distribution, & Logistics

Automotive Service Excellence Student Certification

Work Based Learning

Work-based learning (WBL) is a proactive approach to bridging the gap between high school and high-demand, high-skill careers in Tennessee. Students build on classroom-based instruction to develop employability skills that prepare them for success in postsecondary education and future careers. Through experiences like internships, apprenticeships, and paid work experience, seniors (16 years or older) may earn high school credit for capstone WBL experiences. WBL Coordinators are educators who are trained and certified by the state to coordinate these WBL experiences for students. This course applies to all programs of study.

