

ABSS CTE Alphabetical Course Listing 2019-20

Accounting I

Course Description: This course is designed to help students understand the basic principles of the accounting cycle. Emphasis is placed on analysis and the recording of business transactions, preparation and interpretation of financial statements, accounting systems, banking and payroll activities, basic types of business ownership, and an accounting career orientation. [*This course is eligible for Honors weight.](#)

Accounting II Honors

Prerequisite: Accounting I

Course Description: This course is designed to provide students with an opportunity to develop in-depth knowledge of accounting procedures and techniques utilized in solving business problems and making financial decisions. Emphasis includes departmental accounting; corporate accounting; cost accounting and inventory control systems; managerial accounting and budgeting; and further enhancement of accounting skills. ***This course is Honors weight.**

Advanced Digital Media

Prerequisite: Digital Media

Course Description: This course provides students with more advanced knowledge in the digital and interactive media industry. Emphasis is placed on the fundamental concepts of graphic design, a variety of digital media technologies, non-linear editing, and product development and design. [*This course is eligible for Honors weight.](#)

Advanced Game Art Design

Prerequisite: Game Art Design

Course Description: This course is a continuation in the study of game design and interactivity. Emphasis is placed on visual design, evaluating, scripting and networking protocols, and legal issues as well as 3D visual theory. Students compile a game portfolio. Advanced topics include the use of audio and visual effects, rendering, modeling, and animation techniques. Students work in collaborative teams to develop a final 3D game project.

Agricultural Mechanics I

Course Description: Develops knowledge and technical skills in the broad field of agricultural machinery, equipment, and structures. Topics include agricultural mechanics safety, hand/power tool use and selection, electrical wiring and metal working.

Agricultural Mechanics II

Prerequisite: Agricultural Mechanics I

Course Description: Expands upon the topics introduced in Agricultural Mechanics I. Topics include advanced welding and metal cutting skills, plastics, metal fabrication and hot/cold metal working skills. [*This course is eligible for Honors weight.](#)

Agriscience Applications

Course Description: Instruction integrates biological and physical sciences with technology as related to the environment, natural resources, food production, science and agribusiness.

Animal Science I

Course Description: This course focuses on the basic scientific principles and processes that are involved in animal physiology, breeding, nutrition, and care in preparation for an animal science career major. Topics include animal diseases, introduction to animal science, animal nutrition, animal science issues, career opportunities, and animal evaluation. English language arts, mathematics, and science are reinforced. [*This course is eligible for Honors weight.](#)

Animal Science II – Small Animal

Prerequisite: Animal Science I

Course Description: This course provides instruction on animal science topics related to small animals that are served by a veterinarian. Content related to the breeding, grooming, care and marketing of animals that fit into this category are taught in this course. English language arts, mathematics, and science are reinforced in this class. [*This course is eligible for Honors weight.](#)

AP Computer Science

Course Description: Advanced Placement Computer Science is a course with emphasis on programming methodology, algorithms, and data structures. Programming assignments will stress the need for particular algorithms and data structures. JAVA will be the

language used to develop the required skills. Students are expected to take the AP examination. The student may earn college credit for successful completion of the course and AP examination.

AP Computer Science Principles

Course Description: Computer Science Principles is a rigorous, introductory course intended to familiarize students to the general concepts and thinking practices of computing, computer science, and information science. Students will learn computing concepts through authentic visual and interactive projects using the BYOB/SNAP, GameMaker and AppInventor visual programming languages. Students will focus on computing as a creative activity, abstraction, facilitating knowledge creation through computing, algorithms, problem-solving, the Internet, and the global impact of computing. Students are expected to take the AP examination. The student may earn college credit for successful completion of the course and AP examination.

Automotive Service I

Prerequisite: Automotive Service Fundamentals or Introduction to Automotive

Course Description: This course develops automotive knowledge and skills in performing scheduled automotive maintenance, servicing and basic testing of brakes, electrical systems, drivetrain, engine, HVAC and steering & suspension systems, emphasizing hands-on experience. As part of the NATEF accreditation, topics are aligned to the Maintenance and Light Repair (MLR) requirements.

Automotive Service II

Prerequisite: Automotive Service I

Course Description: This course builds on the knowledge and skills introduced in Automotive Service I and develops advanced knowledge and skills in vehicle system repair and/or replacement of components in the brakes, electrical systems, drivetrain, engine, HVAC and steering & suspension systems, emphasizing hands-on experience. As part of the NATEF accreditation, topics are aligned to the Maintenance and Light Repair (MLR) requirements. This course helps prepare students for the Automotive Service Excellence (ASE) certification in Maintenance and Light Repair (MLR-G1).

Automotive Service III

Prerequisite: Automotive Service II

Course Description: This course builds on the skills and knowledge introduced in Automotive Service I & II. Building advanced automotive skills and knowledge in vehicle servicing, testing, repair, and diagnosis of brakes, electrical systems, drivetrain, engine, HVAC and steering & suspension systems, while emphasizing hands-on experience. As part of the NATEF accreditation, topics are aligned to the Maintenance and Light Repair (MLR) requirements. This course helps prepare students for the Automotive Service Excellence (ASE) certification in Maintenance and Light Repair (MLR-G1).

Automotive Service Fundamentals

Course Description: This course introduces automotive safety, basic automotive terminology, system and component identification, knowledge and introductory skills in hand tools, shop equipment, basic servicing, and use of service information. Also, careers and various job opportunities in the automotive repair industry will be discussed. As part of the NATEF accreditation, topics are aligned to the Maintenance and Light Repair (MLR) requirements.

Biomedical Technology I

Course Description: This course challenges students to investigate current medical and health care practices using technology and advances in health care research. Topics include ethics, forensic medicine, infectious diseases, organ transplants, cell biology and cancer, and biomedical research. English language arts and science are reinforced in this course.

Business Law

Prerequisite: Principles of Business and Finance

Course Description: This course is designed to acquaint students with the basic legal principles common to business and personal activities. Topics include personal concepts to assist students when evaluating contracts, maximizing purchasing power through credit, purchasing appropriate insurance, and renting and owning real estate. Business concepts such as contracting, ethics, starting a business, hiring employees, managing employees, or representing other businesses as employee or contractor are included. **This course is eligible for Honors weight.*

Career Management

Course Description: This course prepares students to locate, secure, keep, and change careers. Emphasis is placed on self-assessment of characteristics, interests, and values; education and career exploration; evaluation of career information and creation of a career plan.

Carpentry I

Prerequisite: Core and Sustainable Construction

Course Description: This course builds on the previous course and allows for skill development in using hand and power tools, reading plans, and understanding various building materials. This course helps prepare students for the National Center for Construction Education and Research (NCCER) certification and is taught by an NCCER certified instructor.

Carpentry II

Prerequisite: Carpentry I

Course Description: This course continues to allow for the development of carpentry skills in the areas of roofing, drywall installation, and exterior finishing. This course helps prepare students for the National Center for Construction Education and Research (NCCER) certification and is taught by an NCCER certified instructor.

Carpentry III

Prerequisite: Carpentry II

Course Description: This is the final course in the carpentry sequence and introduces more advanced skills such as rigging and working with concrete. This course helps prepare students for the National Center for Construction Education and Research (NCCER) certification and is taught by an NCCER certified instructor.

Computer Engineering Technology I

Course Description: This course includes the skills required for installing and maintaining hardware. It includes objectives in the following five domains, a) PC Hardware, b) Networking, c) Laptops, d) Printers, and e) Operational Procedures. English language arts, mathematics, and science are reinforced. This course helps prepare students for the CompTIA A+ credential. **This course is eligible for Honors weight.*

Computer Engineering Technology II Honors

Prerequisite: Computer Engineering Technology I

Course Description: This course includes operating systems and troubleshooting (including troubleshooting of hardware). It includes the following four domains, a) Operating Systems, b) Security, c) Mobile Devices, and d) Troubleshooting. This course helps prepare students for the CompTIA A+ credential. **This course is Honors weight.*

Computer Programming I (being replaced by BP14 Python Programming I)

Course Description: This course is designed to introduce the concepts of programming, application development, and writing software solutions in the Visual Basic environment. Emphasis is placed on the software development process, principles of user interface design, and the writing of a complete Visual Basic program including event-driven input, logical decision making and processing, and useful output. **This course is eligible for Honors weight.*

Computer Programming II Honors (being replaced)

Prerequisite: Computer Programming I

Course Description: This project-based course is designed to teach students to access and manipulate data in a variety of data structures including Access, Structured Query Language (SQL), XML, and text files. Emphasis is placed on advanced functionality, packaging and deploying business solutions, and program life-cycle revision and maintenance. **This course is Honors weight.*

Core and Sustainable Construction

Course Description: This course covers basic carpentry terminology and develops technical aspects of carpentry with an emphasis on the development of introductory skills. Students will also explore the emerging field of sustainable construction. This course helps prepare students for the National Center for Construction Education and Research (NCCER) certification and is taught by an NCCER certified instructor.

Creative Coding for Games and Applications (No longer offered – Title change to Introduction to Computer Science using MakeCode)

Course Description: This course is designed to attract and reach a broad and diverse range of students, including those who may have never before considered programming. Students learn how to code by working in a real software development environment to design, program and publish mobile apps and games. Learning to code by creating real products, students discover how to make amazing things and have an impact on their world.

CTE Advanced Studies

Prerequisites: Two (2) technical credits in one Career Cluster

Course Description: This culminating course for juniors and seniors must augment the content of the completer course and prepare students for success in transitioning to postsecondary education and future careers. Requirements of the course are writing a research paper, producing a product, developing a portfolio and delivering a presentation.

CTE Apprenticeship

Prerequisites: Two (2) technical credits in a Career Cluster

Course Description: An apprenticeship, or pre-apprenticeship, through the North Carolina Department of Labor allows students to earn hours and credit toward an adult apprenticeship. This course is appropriate for occupations that do not require a college degree but require a high level of skill and knowledge.

CTE Internship

Course Description: The CTE internship allows for additional development of career and technical competencies beyond the classroom. Internships are exploratory in nature and allow the student to participate in daily operations, perform certain job tasks and develop direct contact with job personnel.

Culinary Arts and Hospitality I

Prerequisite: Introduction to Culinary Arts and Hospitality

Course Description: This course is designed for students who are considering a career in the culinary field. Students focus on learning basic skills in cold and hot food production, baking and pastry, and service skills.

Culinary Arts and Hospitality II

Prerequisite: Culinary Arts and Hospitality I

Course Description: This course provides advanced experiences in cold and hot food production, facility management and service skills. Topics covered include menu planning, business management and guest relations.

Digital Media

Course Description: This course provides students with industry knowledge and skills in the digital media design field. Areas covered include graphics, animation, video, and web design. **This course is eligible for Honors weight.*

Drafting I

Course Description: Introduction to the nature of drafting and employment opportunities. This course includes basic familiarization with terms and tools of the drafting trade, practice in geometric construction, orthographic projections, and Computer Assisted Drafting (CAD).

Drafting-Architectural II

Prerequisite: Drafting I

Course Description: This course focuses on the principles, concepts, and use of complex drawing tools used in the field of architecture, structural systems and construction. Emphasis is placed on the use of CAD to create floor plans, wall sections, and elevation drawings. Mathematics, science, and visual design concepts are reinforced. **This course is eligible for Honors weight.*

Drafting-Architectural III Honors

Prerequisite: Drafting-Architectural II

Course Description: This course introduces students to advanced architectural design concepts. Emphasis is placed on the use of computer assisted design (CAD) tools in the design and execution of site and foundation plans as well as topographical information and detail drawings. ***This course is Honors weight.**

Drafting-Engineering II

Prerequisite: Drafting I

Course Description: This course focuses on engineering graphics by introducing the students to symbol libraries, industry standards and sectional techniques. Topics include coordinate systems, principles of machine processes and gearing, and the construction of 3-D wireframe models using computer assisted design (CAD). **This course is eligible for Honors weight.*

Drafting-Engineering III Honors

Prerequisite: Drafting-Engineering II

Course Description: This course introduces the student to advanced engineering concepts. Using CAD tools, topics studied include descriptive geometry, geometrical tolerancing, and advanced engineering design concepts such as surface and solid modeling. ***This course is Honors weight.**

Electrical Trades I

Prerequisite: Core and Sustainable Construction

Course Description: This course covers basic electrical trades terminology and develops technical aspects of the electrical trades. Topics included are basic electricity, electrical construction codes and practices, the use of test equipment, and electrical hand and power tools.

Electrical Trades II

Prerequisite: Electrical Trades I

Course Description: This course builds on the skills mastered in Electrical Trades I. It provides an introduction to the National Electric Code, device boxes, hand bending, raceways and fittings, conductors and cables, construction drawings, residential services, test equipment, alternating circuits, grounding, and bonding.

Electrical Trades III

Prerequisite: Electrical Trades II

Course Description: This course content includes motors, electric lighting, conduit bending, pull and junction boxes, conductor installations, cable tray, conductor terminations and splices, circuit breakers and fuses, control systems, and concepts. Upon successful completion of this course, students should be prepared to enter the workforce as an electrical helper and/or continuing education towards degrees in Construction Management or Electrical Engineering.

Emergency Medical Technology I

Prerequisite: English II

Course Description: This course is aligned to the EMT Basic certification available from the North Carolina Office of Emergency Medical Services and is part I of a two course sequence require to meet the mandatory hours of training. The course includes skills in each area, using resources from the community to help deliver instruction to the students.

Emergency Medical Technology II

Prerequisite: English III and Emergency Medical Technology I

Course Description: This course is aligned to the EMT Basic certification available from the North Carolina Office of Emergency Medical Services and is part II of a two course sequence require to meet the mandatory hours of training. The course includes skills in each area, using resources from the community to help deliver instruction to the students.

Entrepreneurship I

Prerequisite: Marketing, Personal Finance or Principles of Business and Finance

Course Description: Students will evaluate the concepts of going into business for themselves and working for, or operating, a small business. Students will develop the components of a business plan and evaluate startup requirements.

Finance Academy I

Prerequisite: Acceptance into the Williams High School Finance Academy

Course Description: The Finance Academy I course is a combination of the Principles of Finance and the Financial Services courses designed by the National Academy Foundation. Principles of Finance gives students a thorough introduction to the concepts, tools, and institutions of finance and serves as a foundation for the core courses offered by the Academy of Finance. This course begins with the basics of financial literacy and the function of finance in society and examines financial institutions and the role of finance in organizations. Financial Services provides students with an overview of banks and other financial services companies. The course begins by introducing students to the origins of money and banking, and then examines the early history of banking in the United States.

Finance Academy II

Prerequisite: Finance Academy I

Course Description: The Finance Academy II course is a combination of the Business Economics and the Entrepreneurship courses designed by the National Academy Foundation. Business Economics introduces students to the key concepts of economics as they pertain to business. This course discusses the American economy and the factors that influence the success of businesses and

products. Entrepreneurship introduces students to the critical role entrepreneurs play in the national and global economy. Students learn the skills, attitudes, characteristics, and techniques necessary to become successful entrepreneurs. They explore starting a business and learn about the operational issues and financial risks that new businesses face.

Finance Academy III

Prerequisite: *Finance Academy II*

Course Description: The Finance Academy III course is a combination of the Insurance and the Business in a Global Economy courses designed by the National Academy Foundation. The Insurance course introduces students to the insurance industry and to its critical role in the financial services sector and in society. It covers common types of insurance, including life, health and disability, property, liability, and forms of commercial insurance. Business in a Global Economy provides students with an understanding of how and why businesses choose to expand their operations into other countries. This course exposes students to the unique challenges facing firms doing business internationally – and to the potential opportunities and markets that are lost to firms that choose not to do business in the global marketplace. Students explore cultural, economic, and political differences that affect business operations and decision making. Students study the business strategies that enable companies to compete effectively in a global economy.

Fire Fighter Technology I

Course Description: This course covers part of the NC Fire Fighter I/II combination certification modules required for all fire fighters in North Carolina. The modules include: Fire Department Orientation & Safety; Health & Wellness; Fire Behavior; Personal Protective Equipment; Fire Hose, Streams, & Appliances; Portable Fire Extinguishers; Foam Fire Streams, and Emergency Medical Care.

Fire Fighter Technology II

Prerequisite: *IP31 Fire Fighter Technology I*

Course Description: This course covers additional NC Fire Fighter I/II combination certification modules required for all fire fighters in North Carolina. The modules include: Building Construction, Ropes; Fire Alarms and Communications; Forcible Entry; Ladders; Ventilation; and Loss Control.

Fire Fighter Technology III

Prerequisite: *IP32 Fire Fighter Technology II*

Course Description: This course covers part of the NC Fire Fighter certification modules required for all fire fighters in North Carolina. The modules include: Water Supplies, Sprinklers, Fire & Life Preparedness, Rescue, Mayday, and Safety & Survival. This course prepares students for the North Carolina Fire Fighter I/II certification modules.

Flexible Automation & Robotics (3rd level, taking place of PLTW CIM in 2020-21; 4th course PLTW Eng Des & Dev)

Prerequisite: *TP12 PLTW Principles of Engineering or TE12 Technological Design*

Course Description: In this course, students develop an understanding of the processes involved from the creation to the consumption of Automation and Robotics in the Advanced Manufacturing world. Students develop an understanding of and skills used in the areas of distribution, assembly line management, and entrepreneurial creation. Students will work with 3D printing technology, CNC machine devices, specialized software and robotics. **This course is Honors weight.*

Food and Nutrition I

Course Description: This course examines the nutritional needs of the individual. Students learn fundamentals of food production, kitchen and meal management, food groups and their preparation, and time and resource management.

Food and Nutrition II

Prerequisite: *Foods I or Food and Nutrition I*

Course Description: Students experience the cross-section of nutrition science and food preparation while building skills for an expanding range of career opportunities. Emphasis is placed on health and social responsibility while improving the way people eat. Students come to understand good protection, nutrition, lifespan nutrition, sports nutrition, medical nutrition therapy, American and global foodways, and entrepreneurship. Food safety and sanitation receive special emphasis, with students preparing to take the exam for the ServSafe Credential from the National Restaurant Association.

Food Science & Technology Honors

Prerequisites: *FN41 Foods I or FH21 Culinary Arts and Hospitality I or Environmental Science or Physical Science or Biology or Chemistry*

Course Description: This course explores the food industry from the farm to the table using skills in food science, technology, engineering, and mathematics. Government regulations, emerging trends, biotechnology, and technological career opportunities

from scientists to technicians will be presented. The student examines production, processing, preparation, preservation, and packaging principles along the farm to table continuum. The student begins to understand how food technology affects the food that he/she eats. ***This course is Honors weight.**

Game Art Design

Prerequisite: Scientific & Technical Visualization I

Course Description: This course will focus on the principles used in game design, including mathematical and virtual modeling. Students will develop physical and virtual games using a variety of software. Emphasis will be placed on the process of game development and ethics. ***This course may be eligible for Honors weight.**

Health Science I

Course Description: This course focuses on human anatomy, physiology and human body diseases and disorders, and biomedical therapies. Information about healthcare careers is shared within the context of human body systems. Science and English language arts are reinforced in this class.

Health Science II

Prerequisite: Health Science I

Course Description: This course is designed to help students expand their understanding of financing and trends of health care agencies, fundamentals of wellness, legal and ethical issues, concepts of teamwork, and effective communication. Healthcare skills, language arts, mathematics, and communications are reinforced in this course. Students learn health care skills, including current CPR and first aid training. Language arts, mathematics, and communications are reinforced in this course. ***This course is eligible for Honors weight.**

Horticulture I

Course Description: Introduces students to the broad field of horticulture, including fruits, vegetables, and ornamental plants. The classroom, greenhouse, and outdoor laboratory are used for instruction where emphasis is placed on "learning by doing." ***This course is eligible for Honors weight.**

Horticulture II

Prerequisite: Horticulture 1

Course Description: Expands on the scientific and communication skills needed in the horticulture field. Practical application of concepts is an integral part of the course. ***This course is eligible for Honors weight.**

Horticulture II-Turfgrass Management

Prerequisite: Horticulture I

Course Description: This course provides instruction in turf management and production as it relates to lawn care, golf course management and landscaping. Practical application of the concepts taught is an integral part of the course. ***This course is eligible for Honors weight.**

Interior Design I

Course Description: This course focuses on housing needs and options of individuals and families at various stages of the life cycle. Emphasis is placed on selecting goods and services and creating functional, pleasing living environments using sound financial decisions and principles of design.

Interior Design II

Prerequisite: Housing and Interiors I or Interior Design I

Course Description: This course is designed for students wishing to pursue a career in interior design. Students will deepen their understanding of design fundamentals and theory by designing interior plans to meet the living space needs of individuals or families. Topics include application of design theory to interior plans and production, selection of materials and examination of business procedures.

Introduction to Computer Science using MakeCode

Prerequisite: none

Course Description: This course is an introduction to programming for the early secondary grades. The course is designed to attract and reach a broad and diverse range of students, including those who may have never before considered programming. Students learn how to code by working in a real software development environment to design, program and publish mobile apps and games. Learning to code by creating real products, students discover how to make amazing things and have an impact on their world.

Introduction to Culinary Arts and Hospitality

Course Description: Basic safety and sanitation practices leading to an industry-recognized food safety credential are introduced. Commercial equipment, smallwares, culinary math and basic knife skills are taught. Students may take the exam for the ServSafe Credential from the National Restaurant Association.

Marketing

Course Description: Students will develop an understanding of the processes involved from the creation to consumption of products and services. They will develop an understanding of marketing functions, applications and impact on business operations by studying areas such as pricing, market planning, promotion and selling. **This course is eligible for Honors weight.*

Microsoft Excel

Course Description: Students will learn to use the latest version of Microsoft Excel to create, enhance, customize and share spreadsheets. Students will have the opportunity to become certified as a Microsoft Office Specialist in Excel. **This course is eligible for Honors weight.*

Microsoft Word and PowerPoint

Course Description: Students will learn to use the latest version of Microsoft Word, PowerPoint and Publisher to create, enhance, customize and share documents, presentations and publications. Students will have the opportunity to become certified as a Microsoft Office Specialist in Word and PowerPoint. **This course is eligible for Honors weight.*

Multimedia and Webpage Design

Prerequisite: Microsoft Word and PowerPoint

Course Description: This course focuses on desktop publishing, graphic image design, computer animation, multimedia production and webpage design. Communication skills and critical thinking are reinforced through software applications. **This course is eligible for Honors weight.*

Nursing Fundamentals Honors

Prerequisite: Health Science II

Course Description: This course is designed for students who are interested in medical careers where personal care and basic nursing skills are used. It is an enhanced adaptation of the North Carolina Division of Health Science Regulation Nurse Aide I curriculum. Students may take the National Nurse Aide Assessment after completing this course and be listed in the North Carolina NA Registry. **This course is Honors weight.*

Parenting and Child Development

Course Description: This course introduces students to the basic applications of child development theory with children from infancy through age six. Emphasis is on the responsibilities of parents, readiness for parenting and the influence of parents on children while providing care and guidance.

Personal Finance

Course Description: Personal Finance prepares students to understand economic activities and challenges of individuals and families, the role of lifestyle goals in education and career choices, procedures in a successful job search, financial forms used in independent living, and shopping options and practices for meeting consumer needs. The course also prepares students to understand consumer rights, responsibilities, and information, protect personal and family resources, and apply procedures for managing personal finances.

Pharmacy Technician Honors

Prerequisite: Health Science II

Course Description: This course has self-paced, online instruction designed to prepare high school seniors for a pharmacy technician career. Topics included in this course are federal law, medication used in major body systems, calculations, and pharmacy operations. Mathematics is reinforced in this course. This course is accredited by the Accreditation Council for Pharmacy Education (APCE). Upon successful completion of this course and after graduation, the student is eligible to take the Pharmacy Technician Certification Board (PTCB) exam. **This course is Honors weight.*

PLTW Computer Integrated Manufacturing (3rd course in PLTW & staying same for 2019-20; will pair w/new inherently honors course TL19 Flexible Automation & Robotics, which will take place of PLTW CIM in 2020-21)

Prerequisite: TP12 PLTW Principles of Engineering or TE12 Technological Design

Course Description: In this specialization Project Lead the Way (PLTW) **Pathway to Engineering (PTE) course**, students answer the questions: How are things made? What processes go into creating products? Is the process for making a water bottle the same as it is for a musical instrument? How do assembly lines work? How has automation changed the face of manufacturing? As students find the answers to these questions, they learn about the history of manufacturing, a sampling of manufacturing processes, robotics and automation. The course is built around several key concepts: computer modeling, Computer Numeric Control (CNC) equipment, Computer Aided Manufacturing (CAM) software, robotics, and flexible manufacturing systems. ***This course is AP weight.**

PLTW Engineering Design & Development

Prerequisite: PLTW Computer Integrated Manufacturing

Course Description: In this capstone Project Lead the Way (PLTW) **Pathway to Engineering (PTE) course**, students will work in teams to research, design, test and construct a solution to an open-ended engineering problem. The product development life cycle and a design process are used to guide and help the team to reach a solution to the problem. The team presents and defends their solution to a panel of outside reviewers at the conclusion of the course. The EDD course allows students to apply all the skills and knowledge learned in previous Project Lead the Way courses. The use of 3D design software helps students design solutions to the problem their team has chosen. This course also engages students in time management and teamwork skills, a valuable skill set for students in the future. ***This course is eligible for Honors weight.**

PLTW Introduction to Engineering Design (being replaced by TE11 Technology Engineering & Design)

Course Description: In this foundation Project Lead the Way (PLTW) Pathway to Engineering course, students are exposed to the design process, research and analysis, teamwork, communication methods, engineering standards and technical documentation. This course is designed for students who plan to pursue a career in engineering. ***This course is AP weight.**

PLTW Principles of Engineering (2nd course in PLTW & staying same for 2019-20 & will be replace in 2020))

Prerequisite: PLTW Introduction to Engineering Design or TE11 Technology Eng & Des.

Course Description: In this course, students are exposed to major concepts they will encounter in a postsecondary engineering course of study. Students will employ engineering and scientific concepts to solve engineering design problems. ***This course is AP weight.**

Principles of Business and Finance

Course Description: This is an introductory course covering principles and concepts that will be the foundation for future study of business and management. Topics of study include basic business principles, personal finance concepts, management concepts, systems thinking, quality, management and the current environment for business in an international marketplace. ***This course is eligible for Honors weight.**

Principles of Family & Human Services

Course Description: Students learn core functions of the human services field; individual, family, and community systems; and life literacy skills for human development. Emphasis is placed on professional skills, human ecology, diversity, analyzing community issues, and life management skills. Activities engage students in exploring various helping professions, while building essential life skills they can apply in their own lives to achieve optimal well being.

Public Safety I

Course Description: This course provides basic career information in public safety including corrections, emergency and fire management, security and protection, law enforcement, and legal services. Additionally students will develop a personal plan for a career in public safety. The course includes skills in each area, using resources from the community to help deliver instruction to the students.

Python Programming I

Course Description: This course includes video content, practice labs, and coding projects. The course content is presented in three units. Unit 1 focuses on Python language basics, introducing data types, variables, input, functions, operators, conditional statements, loops, and incrementing. Students will be introduced to the basic structure of the Python 3 language and be ready to take Unit 2 as well as other beginner courses. Unit 2 focuses on Python data structures such as strings, lists, and range sequences, as well as methods for working with these structures. Students will be introduced to data structures and files in Python 3 and be ready to take Unit 3 as well as other beginner courses. Unit 3 focuses on using Python to develop sustainable code. Students will be introduced to data structures and files in Python 3 and be ready for more-advanced Python learning.

Scientific & Technical Visualization I

Course Description: This state-of-the-art course introduces students to the use of complex graphic tools. Emphasis is placed on the principles, concepts, and use of complex graphic and visualization tools as applied to the study of science and technology. Students will use complex 2D graphics, animation, editing and image analysis tools to understand, illustrate, explain and present technical and scientific concepts and principles. **This course is eligible for Honors weight.*

Scientific & Technical Visualization II Honors

Prerequisite: Scientific & Technical Visualization I

Course Description: This course provides students with advanced skills in the use of complex visualization tools for the study of science, technology, or mathematical concepts. Students design and develop increasingly complex data and concept-driven visualization models. Students use complex 2D and 3D graphics, animation, editing, and image analysis tools to better understand, illustrate, and explain concepts. Students present technical, mathematical, and/or scientific concepts and principles. ***This course is Honors weight.**

Sports & Entertainment Marketing I

Course Description: This course is designed for students interested in an introduction to sports, entertainment, and event marketing. Emphasis is placed on the following principles as they apply to the industry: branding, licensing, and naming rights; business foundations; concessions and on-site merchandising; economic foundations; promotion; safety and security; and human relations.

Sports & Entertainment Marketing II

Prerequisite: Sports & Entertainment Marketing I

Course Description: This course is designed for students interested in an advanced study of sports, entertainment, and event marketing. Emphasis is placed on the following principles as they apply to the industry: Business management, career development options, client relations, ethics, events management, facilities management, legal issues and contracts, promotion, and sponsorships. **This course is eligible for Honors weight.*

Technology Engineering & Design (TE11 – Replacing TP11 PLTW IED, taught at CTEC. Next course, PLTW Prin of Eng for 19-20)

Course Description: This course focuses on the nature and core concepts of technology, engineering, and design. Through engaging activities and hands-on project-based activities, students are introduced to the following concepts: elements and principles of design, basic engineering, problem solving, and teaming. Students apply research and development skills and produce physical and virtual models. **This course is eligible for Honors weight.*

New course progression PLTW	1st course	2nd course	3rd course	4th course
2019-2020 transition year	Tech Eng Design	PLTW POE	PLTW CIM paired with Flex Auto & Robotics	PLTW EDD
2020-2021 new pathway	Tech Eng Design	Technological Design	Flex Auto & Robotics	CTE Hon Adv Studies