

## 2022-23 Elective Course Descriptions

### **MATH**

**AP Calculus AB/BC** – This is a year-long course that teaches the four “big ideas”: limits, derivatives, integrals & fundamental theorem of Calculus, and series. Technology to help solve problems, experiment, interpret results, and support conclusions will also be included. *Prerequisite: Pre-Calculus*

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

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

### **SCIENCE**

**Honors Anatomy & Physiology** – This course studies the structure and function of human body systems. This is an excellent course to prepare students for college courses in the health or life sciences. *Pre-requisites: Biology and Chemistry*

**AP Environmental Science** – The goal of this course is to provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems both natural and human-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving or preventing them. *Pre-requisites: Biology and Chemistry*

**Earth & Space Science** – This is the study of the earth. The class will study the dynamic processes that occur on our planet like earthquakes, volcanoes, the rock cycle, paleontology (geologic history), weathering and erosion, mountain building and as well as maps. You will learn more about the processes that are shaping this wonderful area in which you live. It meets the 3<sup>rd</sup> lab science graduation requirement. *Pre-requisites: Biology and Chemistry*

**Honors Biology 2/AP Biology** – This college-level, full year course expands on topics covered in Biology 1 and introduces new ones. Students will have the opportunity to expand their lab skills as they participate in College Board required lab activities. Students considering a career in the life sciences or the health field are encouraged to take this challenging course and possibly earn college credit with a score of 3 or higher on the AP Exam. *Pre-requisites: Biology and Chemistry*

**Honors Chemistry 2/AP Chemistry** – This is a year-long course that provides a more detailed look at the field of chemistry. Chemistry 2 builds on many of the topics covered in Chemistry 1 Honors. AP Chemistry expands into a variety of new topics. The course has a strong math emphasis and labs provide real world connections. *Pre-requisites: Biology and Chemistry.*

**Honors Physics** – Honors Physics is designed to meet the needs of the more academically able student. It consists of the same standards as Physics but is taught at a faster pace and goes more in-depth in order to include time for enrichment topics. The Honors level prerequisite is based upon a combination of standardized test scores, past performance in science and math, and teacher recommendations. Current enrollment in Algebra 2 or

an advanced math is recommended for students in the honors course. *This course also can count as a student’s 4th math credit provided it is not also the student’s 3rd science credit.*

### **DUAL ENROLLMENT**

To be eligible to register for a general education dual enrollment course, a student must have at least a 3.6 GPA OR all of the following: Unweighted 3.0 GPA, ACT English score of 18, ACT Reading score of 19, and ACT Math score of 19 *only required if taking Math 1530.*

**English 1010 – English Composition 1** – Will satisfy Senior English requirement. Topics include critical reading and writing essays with emphasis on research, writing processes, and effective formatting.

**English 1020 – English Composition 2** – Analytic writing based on the study of literature; study and practice of research writing.

**Math 1530 - Elementary Probability & Statistics** – Will satisfy Senior Math requirement. Topics include elementary probability theory, concepts of descriptive statistics, discrete and continuous distributions, hypothesis testing, confidence intervals, sample sizes, correlation, regression, multinomial, and contingency tables. Non-calculus based computer applications will be investigated. ***Students must also have an ACT Math score of 19 before being allowed to register for this course.***

***\*\*See separate Dual Enrollment form for additional DE course options.***

### **WORLD LANGUAGES**

**French 1 & 2** – Interested in acquiring knowledge of the French language and culture? Learn vocabulary, grammar, and translation skills while studying the historical and cultural values of France.

**Honors French 3 & 4** – Explore and delve deeper into French grammar while learning more about this romantic culture. You will become more fluent with reading, writing, understanding, and speaking this mysterious language.

**Spanish 1 & 2** – Interested in acquiring knowledge of the Spanish language and cultures? Learn vocabulary, grammar, and translation skills while studying history and culture.

**Honors Spanish 3 & 4** – The purpose of these courses is to develop reading, writing, listening, and speaking skills and the study of literature and culture.

### **HUMANITIES**

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

**AP Macroeconomics (Asynchronous)**- The purpose of AP Macroeconomics is to give students a thorough understanding of the principles of economics that apply to an economic system as a whole. The course places particular emphasis on the study of national income and price-level determination, and also develops students’ familiarity with economic performance measures, the financial sector, stabilization policies, economic growth, and international economics. This course fulfills the graduation requirement: Economics. *Prerequisite: Departmental Recommendation.*

**AP Microeconomics (Asynchronous)**- The purpose of AP Microeconomics is to give students a thorough understanding of the

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principles of economics that apply to the functions of individual decision makers, both consumers and producers, within the economic system. It places primary emphasis on the nature and functions of product markets and includes the study of factor markets and of the role of government in promoting greater efficiency and equity in the economy. *Prerequisite: Departmental Recommendation.*

**AP World History (Asynchronous)** - AP World History Modern begins in 1200 CE and continues to the present. Students are asked to analyze primary and secondary sources, develop historical arguments, make historical connections, and utilize reasoning about comparison causation, and continuity and change over time. Students will explore events, individuals, developments, and processes in different times and places through six themes including humans and the environment, cultural developments and interactions, governance, economic systems, social interactions and organizations, and technology and innovation.

*Prerequisite: Departmental Recommendation.*

**Film Studies** - A one-unit course designed to be taught in grades 11-12. This course will give students an understanding of the complex relationship between American culture and commercial films of the 20<sup>th</sup> century.

**Sociology/Psychology** - This course begins with an understanding of sociology and the sociological perspective. A focus will be placed on the role of culture, race, gender, age, and other social institutions and their effects on society as a whole. The course continues with defining psychology and the different approaches to psychology. The role of the brain and the body in thought processes will be discussed. Personality, psychological disorders, and sociocultural influences will be a part of the class as well.

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

*Prerequisite: Departmental Recommendation.*

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

**Etymology/Mythology** - A one-unit course for students in grades 10-12. Curriculum includes a study of etymology, vocabulary development, classical mythology, and allusions found in literature, music, and the arts.

**Young Adult Literature** - Students in YA Lit will read widely and familiarize themselves with the growing body of literature/genres written for and marketed to adolescents including literature that focuses on diverse cultures. We will read and discuss books related to gender, sexual and cultural identity, cultural diversity, race and class, dystopias, friendship, coming of age, technology, and a range of other social and psychological themes. Students will share responsibility for facilitating discussion of whole class texts and read independently as participants and facilitators in book club and literature circles.

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

Book. Additionally, all United States History courses (i.e., 3rd grade, 4th grade, 5th grade, 8th grade, and United States History) can use the following standards to elaborate on Tennessee history.

### **HUMAN SERVICES**

**Leadership 1** - Students learn leadership skills, parliamentary procedure, problem solving/decision making techniques, communication skills, group dynamics, time and stress management, public speaking, human relations, team building, project planning, and other group processes.

**Leadership 2** - The purpose of this course is to teach students leadership skills, problem solving/decision making techniques, communication skills, group dynamics, time and stress management, public speaking, human relations, team building, project planning, and other group processes. The class goal is to instill information and knowledge that will lead to long, prosperous lives. *Prerequisite: Leadership 1*

**Peer Tutoring (Elementary, Special Ed, or Advanced)** - Designed for students who desire to help give academic and social support to fellow students. Elementary Peer Tutors must be able to drive to the elementary school and requires an application with teacher approval. CDC-A Peer Tutoring requires an application and teacher approval. Advanced Peer Tutors must have a minimum 3.0 GPA and will work with core classes.

### **JROTC - Reserve Officer Training Corps**

**JROTC** - Develop leadership skills, help young people become better citizens, build confidence, develop lifetime wellness skills, and patriotism. Two semesters of JROTC will satisfy both the "Lifetime Wellness" and "Physical Education" graduation requirements.

### **PHYSICAL EDUCATION**

**PE 1** - Learn a variety of individual and dual sports, team sports, outdoor, and fitness activities.

**Advanced PE** - Spend half of the class period in the weight room lifting weights and half of the class in the gym playing team games. *Pre-req: PE 1*

**Advance PE Conditioning/Strength Training** - Learn how to lift weights, create work-out programs, and do several aerobic exercises that focus on overall conditioning.

**ACT Prep** - This course is designed to prepare students for the ACT exam graduation requirement by providing practice tests, materials, and reviews of some of the more common themes included on the ACT.

**Driver's Education** - Classroom, simulation, driving range, and street driving instruction. Students must meet attendance and academic progress requirements to qualify. Must be 15 years of age or older and have never failed a class. **There is a \$150 class fee for this course unless you are on free/reduced lunch.**

**Yearbook** - Use our academic, technical, and artistic skills to develop and design the Gibbs High School yearbook. Only offered during enrichment. An application and teacher approval is required.

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### FINE ARTS

**Ensemble (Audition Only)** – Sing, play piano, learn about music, go to competitions, learn to sight read, and learn to create a capella music like in “Pitch Perfect” and “The Sing Off”. Every spring we travel to Festival. We have the most fun.

**Man Choir** – Learn how to be a musical team. We learn about being confident manly singers. We learn basic piano and sight-reading skills. We have a lot of fun too.

**Mixed Chorus** – Sing, learn to sight read, learn to play a vocal part on piano, learn about music, and deepen our understanding of music’s connection to language and history. We also have a lot of fun. *Prerequisite: Women’s Chorus or Man Choir*

**Women’s Chorus** – Learn about singing, create our own arrangements, and learn basic sight-reading and piano skills. We have a lot of fun.

**Theatre Arts 1** – Study various elements of performance, stagecraft, etc. Class is performance and creativity-based.

**Advanced Theatre Arts** - For students who have completed Theatre Arts 1 and who wish to expand their interpretative skills and knowledge of theatre. The curriculum includes further study of oral and dramatic interpretation of prose and poetry.

**Visual Art 1** - Take a four-part approach to learning about visual art through art-making, art history, and art criticism. We work in a variety of mediums like painting, drawing, pastels, charcoal, clay, and others.

**Art 2 - Drawing and Printmaking** – Learn to use all drawing media in depth through a variety of projects using pencil, charcoal, pastels, paints, colored pencil, ink, etc. We also learn a variety of printmaking techniques to create one-of-a-kind prints and small editions of original artwork. This class can be taken multiple times. *Prerequisite: Visual Art 1*

**AP Art History (Asynchronous)** – Art History is a chronological survey of architecture, painting, sculpture and photography of the western tradition and selected works beyond European artistic traditions (Africa, China, India, Japan, Meso-America, and South America). Emphasis is placed on contextual analysis and the study of the development of style within cultures, movements, and artist’s careers. This class can be taken multiple times. *Prerequisite: Visual Art 1*

**Art 2 - Painting** – Explore painting through a wide variety of painting techniques, processes, and mediums like watercolor, acrylic, oil paint, and mixed media. We also dive deeper into developing artistic concepts, themes, and creative projects as students develop a unique aesthetic and style. This class can be taken multiple times. *Prerequisite: Visual Art 1*

**Art 2 - Ceramics**– This class explores the ceramic elements of art. This class can be taken multiple times for multiple credits. *Prerequisite: Visual Art 1*

**Art 2 - Sculpture**– This class explores the sculpture elements of art. We will use a wide variety of materials including plaster, clay, newspaper, and cardboard to develop ideas and explore three dimensional art. This class can be taken multiple times for multiple credits. *Prerequisite: Visual Art 1*

**Art 2 - Photography** – This course deals with traditional black and white darkroom photography and teaches basic camera handling and darkroom processes & procedures. Students learn how to control light and composition to create a successful photograph. Digital Photography, special effects, and the history of photo will also be addressed.

**Art Honors** - An advanced Art class that focuses on personal exploration of concept and media. Students will be given prompts and challenges and they will be allowed to develop their own response visually using a variety of different media. This course is typically taught in the Fall and paired with either AP 2D Art or AP 3D Art. *Prerequisite: One Art 2 course*

**AP 2D Art** - This course requires Honors Art to be taken first in order to apply. It is designed for students who are seriously interested in the practical experience of art. This class is **not** based on a written exam; instead, students submit portfolios for evaluation by the AP College Board and

possibly college credit. This course is typically taught in the Spring and paired with Art Honors. *Prerequisite: Art Honors*

**AP 3D Art** - This course requires Honors art to be taken first in order to apply. This course is for students who want to focus on 3 dimensional media and explore their own personal voice in art. Students will complete a portfolio that will be graded by the AP College Board and count for college credit if passed. This course is typically taught in the Spring and paired with Art Honors. *Prerequisite: Art Honors*

**Band Color Guard (Fall Semester)** – Flag corp in the Marching Band. A tryout is required.

**Marching Band (Fall Semester Band)** – A performance-based class open for all 9<sup>th</sup>-12<sup>th</sup> grade students with instrumental music experience. All levels of musicians can be successful in this class. The first half of the semester is spent learning the marching show to be performed at football games as well as competitions. Students are expected to attend band camp as well as after school rehearsals that will last through October. After football season is over, students will participate in a concert band style practice. There will be no after school rehearsals after October. Students who participate in marching band will also receive a ½ credit of PE.

**Concert Band (Spring Semester Band)** – A performance-based class open for all 9<sup>th</sup>-12<sup>th</sup> grade students with instrumental experience. All woodwind, brass, and percussion students are accepted. All levels of musicians can be successful in this class. Students will spend the first half of the semester working on concert music and preparing for Concert Festival. The second half of the semester will be focused on preparing for a Spring Concert and Graduation performances. There are no after school rehearsals for this class.

**Development of Rock & Roll** – Study the historical and cultural relationships between the development of the American culture and society and developments in folk, classical, jazz, and other genres of popular music since the Civil War.

**General Music** – Listen to all types of music, create instruments from common household items, participate in class debates on controversial music topics. Types of music we include in class are Broadway music, rock, jazz, folk, classical, and other popular music.

**AP Music Theory** – The goal of the AP Music Theory course is to develop a student’s ability to recognize, understand, and describe the basic materials and processes of music that are heard or presented in a score. The achievement of these goals will be approached by initially addressing fundamental aural, analytical, and compositional skills using both listening and written exercises. Building on this foundation, the course will progress to include more creative tasks, such as the harmonization of a melody by selecting appropriate chords, composing a musical bass line to provide two-voice counterpoint, or the realization of figured-bass notation. Part-writing, sight-reading, and sight-singing are essential components of this process. The Advanced Placement Exam is the culmination of this course.

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

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### CAREER & TECHNICAL EDUCATION

**Health Science Education** – Learn basic first-aid, how to perform vital signs, introduction to Anatomy & Physiology, nutrition, and explore several different careers in the healthcare field. All of this is taught with hands on activities.

**Anatomy & Physiology** – Students will examine human anatomy and physical functions. They will analyze descriptive results of abnormal physiology and evaluate clinical consequences. *Pre-requisites: Biology and Health Science*

**Rehab Careers** – An applied course designed to prepare students to pursue careers in rehabilitation services. Upon completion of this course, a proficient student will be able to identify careers in rehabilitation services, recognize diseases, disorders or injuries related to rehabilitation services and correlate the related anatomy and physiology then develop a plan of treatment with appropriate modalities. *Prerequisite: Health Science Education*

**Health Information Technology** – This course is intended to prepare students with an understanding of the changing world of health care information. With the inclusion of electronic medical records, electronic billing, and electronic prescriptions, students in all healthcare professions must increasingly demonstrate competency in health information and health informatics. Upon completion of this course, proficient students will be able to differentiate among the types of health information/informatics, code and manage medical records, retrieve crucial data from health information systems and indexes, and understand the implications for careers in a range of health care fields. *Prerequisite: Health Science Education*

**Nursing Education** – The class consists of classroom instruction along with participation in clinicals at a long term care facility, or other facility that employs nursing assistants. The class is designed to prepare students who are 16 years or older for a career in nursing. Nursing Education offers students the opportunity to participate in clinicals along with certified nurse assistants under the supervision of registered nurses. Students will be able to explore the field of nursing in a real life setting. Students who satisfactorily complete the course requirements will be eligible to take the nursing assistant certification exam. For more information on this class please refer to the Tennessee Department of Education website (CNA). *Prerequisite: Medical Therapeutics and Anatomy & Physiology*

**Medical Therapeutics** – It provides knowledge and skills to maintain or change the health status of an individual. *Prerequisite: Health Science Education*

**Maintenance & Light Repair 1, 2, & 3** – Learn how an automobile works and how to perform light maintenance and repairs.

**Fundamentals of Construction** – Learn to use hand and power tools. In this beginner level course, we practice using tools by building corn hole boards, dog houses, chicken coops, etc.

**Mechanical, Electrical, and Plumbing Systems (MEP)** – Explore electrical systems in homes and commercial buildings. *Prerequisite: Fundamentals of Construction*

**Construction Practicum** – Construction Practicum is a capstone course intended to provide students with the opportunity to apply the skills and knowledge learned in previous Electrical Construction courses within a professional, working environment. In addition to developing an understanding of the professional and ethical issues encountered by tradesmen and contractors in the workplace, students learn to refine their skills in problem solving, communication, teamwork, and project management in the completion of a course- long project. *Prerequisite(s): Minimum of 2 credits in Electrical Construction program of study.*

**Structural Systems I** – Learn the basics of the carpentry trade. Earn an industry certification. *Prerequisite: Fundamentals of Construction*

**Structural Systems II** – The second level of the carpentry trade. Earn an additional industry certification.

*Prerequisites: Fundamentals of Construction & Structural Systems I*

**Intro to Business and Marketing** – 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 & Management 1** – We learn to be better consumers and we learn the 4 P's of marketing through hands-on activities and using the computer lab. *Prerequisite: Intro to Business and Marketing*

**Social-Media Marketing & Analytics** – This course is a study of concepts and principles used in social media marketing. Students will examine the uses, marketing strategies and data generated by social media marketing. Subject matter includes foundational social media knowledge, social media marketing strategies, communication, and ethical responsibilities.

*Prerequisites: Marketing & Management 1 & 2*

**Computer Applications** – This class lays the foundational knowledge and skills in Word, Excel, PowerPoint and Access.

**Advanced Computer Applications** – This class strengthens and enhances knowledge of the Microsoft Office Suite and prepares those students to gain Specialist, Expert, or Master Microsoft certifications.

**Web Design Foundations** – Web Design Foundations is a course that prepares students with work-related web design skills for advancement in postsecondary education and industry. The course is intended to develop fundamental skills in both theory and practical application of the basic web design and development process, project management and teamwork, troubleshooting and problem solving, and interpersonal skill development. Laboratory facilities and experiences simulate those found in the web design and development industry; where interaction with a "client" is indicated in the standards, it is expected that students' peers or the instructor may serve as mock clients in lieu of an actual relationship with an industry partner. Upon completion of this course, proficient students will be prepared for more advanced coursework in the Web Design program of study. *Prerequisites: Computer Science Foundations, Algebra I and Geometry*

**Accounting 1** – Financial record keeping for a business.

**Business Communications** – Develop skills in multiple methods of communications, social media, electronic publishing, design, layout, composition, and video conferencing.

**Business Management** – In this class we prepare students for careers in business management or careers in a management consulting firm.

**Computer Science Foundations** – Explore information technology occupations and pathways, such as networking systems, programming and software development and web design. This class is a prerequisite for Web Design Foundation and Coding I.

**Coding 1** – Designed for students interested in computer programming. Students will learn programming techniques used by many programmers to create simple computer applications. Students will write, analyze, review, and revise computer programs. *Prerequisite: Computer Science Foundations*

**Coding 2** – Students will develop advanced skills in problem analysis, construction of algorithms, and work on programming projects of increased complexity. *Prerequisites: Computer Science Foundations & Coding 1*

**Architectural & Engineering Design 1** – Learn introductory skills in board drafting and Computer Aided Drafting, CAD. Explore a variety of careers that incorporate CAD.

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**Architectural & Engineering Design 2** – Continue on AutoCAD software increasing their skills in 2D drawing. Students will begin to draw and print in 3D on a new program, SolidWorks.

**Architectural & Engineering Design 3** – Students will continue to enhance their AutoCAD and SolidWorks skills to prepare them for a career or further education. Students have the opportunity to take this course as a Pellissippi State MET 1100 college credit.

**Engineering Practicum** – Students have the opportunity to work at TVA – Gibbs Satellite office.

**Cosmetology 1, 2, & 3** – Designed to prepare students for careers within the personal care industry, including hairstylist, colorist, and nail technician.

**Criminal Justice 1, 2, & 3** – The Law, Public Safety, and Security Elective Focus (Criminal Justice) helps prepare students for careers in planning, managing, and providing legal, public safety, protective services and homeland security, including professional and technical support services.

**Work Based Learning** – Work or volunteer in a setting that aligns with your Elective Focus. This class requires an application and teacher approval. It is for Seniors only. *Pre-requisites: two classes of your elective focus completed, must be related to your elective focus.*

**Principles of Engineering and Technology** - Level 1 Course for the Engineering and Technology programs of study in the STEM Career Cluster. (Other courses available in the STEM cluster follow this description.) It is a foundational course in the STEM cluster for students interested in learning more about careers in engineering and technology.

**Digital Electronics** - Digital Electronics is a course in which students will construct and test fundamental digital logic circuits such as gates, counters, oscillators, and switches. A/D and D/A converters will be applied to signal processing. Microcontroller programs will be modified and microcontrollers applied to closed-circuit control systems. The course culminates in a group project to create a digital servo control loop. Emphasis is on hands-on activities, real-world equipment, and current technology.  
*Prerequisite(s): Algebra 1.*

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

**Robotics & Automated Systems** - Robotics & Automated Systems is an applied course for students who wish to explore how robots and automated systems are used in industry. Building on the content and critical thinking frameworks of Principles of Engineering and Digital Electronics, this course asks students to follow the engineering design process and apply basic programming skills to complete assignments and projects. Upon completion of this course, proficient students will have an understanding of the historical and current uses of robots and automated systems; programmable circuits, interfacing both inputs and outputs; ethical standards for engineering and

technology professions; and testing and maintenance of robots and automated systems. Note: Standards in this course are presented sequentially for students’ learning progression; however, instructors may tailor the order of course standards to their specifications. Students are expected to use engineering notebooks to document procedures, design ideas, and other notes for all projects throughout the course. *Prerequisite(s): Digital Electronics; Algebra I; Geometry; Physical Science and Chemistry or Physics.*

**Introduction to Teaching as a Profession/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. Upon completion of this course, proficient students will gain knowledge in the history of education in the United States, careers in education, and the influence of human development on learning.

**Teaching as a Profession I** - TAP I is an intermediate course for students interested in learning more about becoming a school counselor, teacher, librarian, or speech-language pathologist. This course covers the components of instruction, teaching strategies, types of assessments, student learning, special populations, and educational technology. Students will conduct observations of educators at work and create artifacts for a course portfolio, which will continue with them throughout the program of study. Upon completion of this course, proficient students will have a fundamental understanding of instructional strategies needed for becoming an educator. *Prerequisite: Intro to TAP*

**Teaching as a Profession II** - TAP II is an applied-knowledge course for students interested in learning more about becoming a teacher, school counselor, librarian, or speech-language pathologist. This course covers classroom management, concepts of higher order thinking, differentiating instruction, and strategies of effective classroom planning. Students in this course will demonstrate their skills in laboratory settings while building a course portfolio of work, which will carry with them throughout the program of study. Upon completion of this course, proficient students will be prepared to take the capstone TAP III course and further their studies at the postsecondary level. *Prerequisite(s): Teaching as a Profession I (TAP I).*