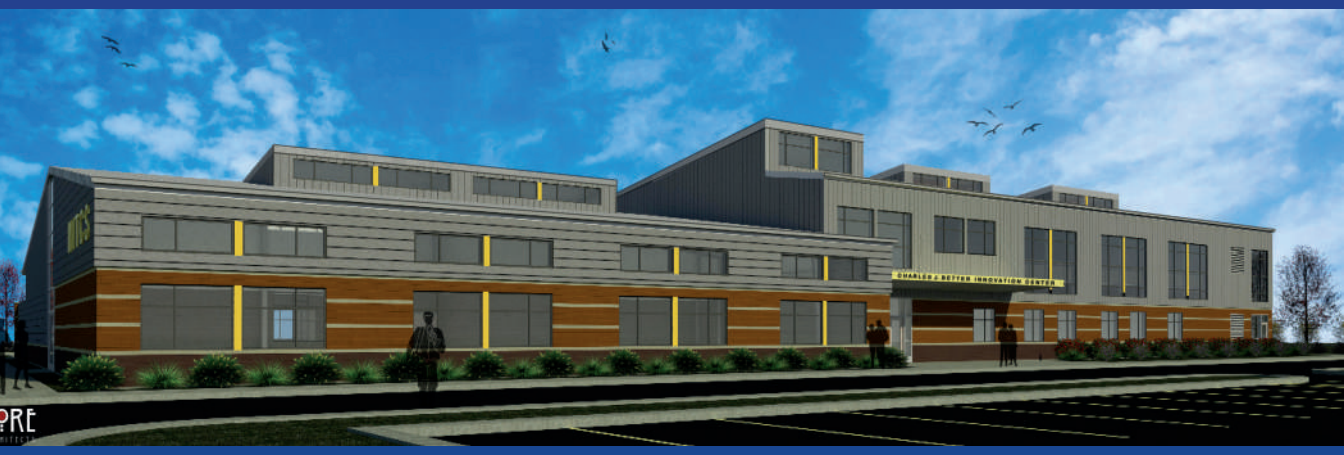
MIDLAND
INNOVATION+
TECHNOLOGY
CHARTER SCHOOL

COURSE CATALOG

2023-2024



BUILDING A BETTER FUTURE begins with becoming the best version of yourself. The Midland Innovation + Technology Charter School (MITCS), located in Midland, PA, is a public high school that provides students in grades 9 through 12 with the chance to tackle real-life projects and pursue areas of personal interest to prepare them for a world of opportunity. While completing state requirements for a high school diploma, students at MITCS will also earn certifications, licensing, and even associate degrees in trades and other areas of endeavor, and graduate prepared to enter the workforce or continue on through post-secondary education or training. By offering authentic, hands-on learning opportunities to a diverse population of students, MITCS serves as a generator of innovative thinking, deep learning, and collaborative engagement to build better futures.

NON-DISCRIMINATION STATEMENT: STUDENTS

Midland Innovation + Technology Charter School (MITCS) does not discriminate against protected students as defined by applicable federal, Pennsylvania state or local laws, including but not limited to the Pennsylvania Human Relations Act, Title VI of the Civil Rights Act of 1964, Title IX of the Educational Amendments Act of 1972, and Section 504 of the Rehabilitation Act of 1973. MITCS is an equal opportunity educational institution and does not discriminate unlawfully in its educational programs, policies, activities or admissions practices on the basis of sex, race, color, national origin, religion, age, disability, genetic information or any other classification protected by applicable federal, state or local laws.

TABLE OF CONTENTS

CURRICULUM PROVIDERS

ARTIFACT: CONTENT FOR LEARNING

A service of Lincoln Park Performing Arts Center, ARTiFact: Content for Learning creates, curates, and distributes digital educational resources to inspire, enhance, and extend learning in and through the creative and performing arts. ARTiFact's high school arts curriculum, ArtsAnywhere, provides high school students comprehensive offerings of courses in music, theater, dance, visual and media arts, career readiness, and STEAM. These courses feature expert instruction supported by engaging media, all guided by seasoned teachers who are also working artists.

CARNEGIE LEARNING

Carnegie Learning, founded by cognitive and computer scientists from Carnegie Mellon University, have been deeply immersed in mathematics research from the start. Their work is guided by more than 20 years of scientific research into how students learn math. Everything they do is driven by research background and commitment to using learning science to make math learning better for students and teachers. The Carnegie Learning High School Math Solutions combine consumable textbooks with artificial intelligence powered software to help students achieve success in mathematics.

HOUGHTON MIFFLIN HARCOURT

Houghton Mifflin Harcourt (HMH) has a long history of innovation and commitment to educators and learners. HMH science programs are designed to encourage student-directed learning and deeper understanding of concepts. Open students' minds to a world of scientific thinking. Using HMH material students will enjoy multimodal learning through their dynamic, integrated print and digital components and gain a deeper understanding of science concepts to ensure mastery.

THE WILSON READING SYSTEM®

The Wilson Reading System (WRS) is a structured literacy program based on phonological-coding research and Orton-Gillingham principles, WRS directly and systematically teaches the structure of the English language. WRS is an intensive Tier 3 program for students in grades 2-12 and adults with word-level deficits who are not making sufficient progress through their current intervention; have been unable to learn with other teaching strategies and require multisensory language instruction; or who require more intensive structured literacy instruction due to a language-based learning disability, such as dyslexia.

ACADEMIES

MITCS is organized through four inter-connected and collaborative academies which are designated and defined as follows:

THE PGT TRANSPORTATION + LOGISTICS ACADEMY

PGT Trucking, a multi-service transportation and logistics firm operating throughout the United States, Canada, and Mexico, has provided the funding for this academy, which will equip students with career-ready skills and credentials in various facets of transportation, logistics, and supply chain management. While trucking will be a primary focus, other courses of study will include training in rail, water, air, cable, and pipeline transportation and logistics.

THE CYRIL H. WECHT FORENSIC SCIENCE + JUSTICE ACADEMY

Named in honor of the world-renowned pathologist and being created with his input and guidance, this academy offers cutting-edge learning in forensic science, criminal justice, legal studies, human rights advocacy, and government. Graduates will be prepared to pursue careers and continued studies in a variety of fields, with a priority focus on recruiting and developing the next generation of law enforcement professionals. A key focus of the work of the Wecht Academy will be on developing and teaching community-based approaches for protecting public safety and enforcing laws while also preserving and promoting civil rights.

THE MITCS SKILLED TRADES + TECHNICAL CAREERS ACADEMY

The lack of skilled workers to fill a growing number of available jobs in the modern workplace is projected to cost the U.S. economy $1.2 trillion in GDP over the next decade. Graduates of this academy will be part of the tech-savvy workforce needed to respond to dynamic changes in the business environment, meet employer and customer expectations, and help maintain a company's competitive edge. Areas of focus include coding, gaming, and simulations across a range of applications and careers; the use of drones and robotics in modern industry; process technology in manufacturing; safety engineering; and skills development, professional mentoring, and apprenticeship opportunities in welding, carpentry, plumbing, HVAC, electrical, and construction.

THE MITCS COMMUNITY DEVELOPMENT + SUSTAINABILITY ACADEMY

As western Pennsylvania's communities and regional economy grapple with the promises and complexities of a post-pandemic future, this academy will prepare students to meet these challenges by encouraging them to learn collaboratively, think globally, and act locally. Areas of study include American enterprise and international entrepreneurship, healthcare innovations, community building, and sustainable development. Programming will integrate Education for Sustainable Development (ESD) as envisioned by the United Nations Education, Science, and Cultural Organization (UNESCO).

GRADUATION REQUIREMENTS

CREDITS	SUBJECT
4.0	ENGLISH LANGUAGE ARTS
3.0	MATH
3.0	SCIENCE
4.0	SOCIAL STUDIES
2.0	FINE ARTS
3.5	ELECTIVES
1.0	PHYSICAL EDUCATION
0.5	HEALTH
3.0	CTE OR EQUIVALENT
24.0	**TOTAL CREDITS REQUIRED FOR GRADUATION**

Midland Innovation + Technology Charter School (MITCS) requires all students to complete Homebase in order to be eligible for graduation.

Beginning with the graduating class of 2023, statewide graduation requirements provide pathways for high school students to demonstrate readiness for postsecondary success as outlined in Act 6 and Act 158.

MITCS encourages parents to monitor their child's progress toward meeting graduation requirements. Parents play a vital role in ensuring that their child has earned the required number of credits by their senior year. Typically, a student begins to accumulate credits as a freshman.

SAMPLE STUDENT SCHEDULE

Block/Period	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
HOMEBASE (50 MINUTES)	HOMEBASE ACTIVITIES	HOMEBASE ACTIVITIES	HOMEBASE ACTIVITIES	HOMEBASE ACTIVITIES	HOMEBASE ACTIVITIES
BLOCK 1 Period 1 (42 MINUTES)	Algebra 1	Algebra 1	Algebra 1	Algebra 1	Algebra 1
BLOCK 1 Period 2 (42 MINUTES)	English 9	English 9	English 9	English 9	English 9
BLOCK 2 Period 3 (42 MINUTES) BLOCK 2 Period 4 (42 MINUTES)	Career Pathways Fundamentals of Aerospace	Career Pathways Fundamentals of Aerospace	Career Pathways Fundamentals of Aerospace	Career Pathways Fundamentals of Aerospace	Career Pathways Fundamentals of Aerospace
LUNCH (30 MINUTES)	LUNCH A	LUNCH A	LUNCH A	LUNCH A	LUNCH A
BLOCK 3 Period 5 (42 MINUTES) BLOCK 3 Period 6 (42 MINUTES)	Personal Learning Time Homebase Electives	Personal Learning Time Homebase Electives	Personal Learning Time Homebase Electives	Personal Learning Time Homebase Electives	Personal Learning Time Homebase Electives
BLOCK 4 Period 7 (42 MINUTES)	World Geography	World Geography	World Geography	World Geography	World Geography
BLOCK 4 Period 8 (42 MINUTES)	Biology	Biology	Biology	Biology	Biology
BUS DISMISSAL	BUS DISMISSAL	BUS DISMISSAL	BUS DISMISSAL	BUS DISMISSAL	BUS DISMISSAL

HOMEBASE

The purpose of this course is to provide students with an opportunity to experience success in school and improve attitudes and behaviors towards learning, self, school, and community. In this course, students will complete a career aptitude and discovery assessment that uses performance measures to empower students with the knowledge of their unique capabilities to better inform their career interests. Students and faculty will use this information to work in concert to guide the students to success in school, careers, and life. The focus of the course is to prepare students for the workplace and life. The subjects covered include some of the top 20 most important or vital skills/qualities that employers and hiring managers look for in employees.

COURSE CODE: HOM0001

SKILL DOMAINS	LEARNING UNITS
PERSONAL & SOCIAL COMPETENCIES	Learning with Others Understanding and improving My Learning Self Respect, Responsibility and Independence
COMMUNICATIONS	Speaking and Listening
THINKING SKILLS	Researching, Reasoning, and Inquiry Creative Thinking and Problem Solving

CAREER PATHWAYS

CAREER TECHNICAL + SKILLED TRADES

INTRODUCTION TO WELDING

This competency-based course is designed to provide students with knowledge of the basic manufacturing processes, properties of metals, and safe operating skills needed to demonstrate use of equipment in oxy-fuel, shielded metal arc welding (SMAW), and gas metal arc welding (GMAW). The students will use virtual reality to perform oxy-fuel cuts, shielded metal arc welding (SMAW), gas metal arc welding (GMAW), and Gas Tungsten Arc Welding (GTAW). The students will perform welds using SMAW and GMAW to current industry standards. Welding symbols will be used to interpret detailed drawings used for fabrication. Upon completion of this course, the students will be equipped with work-related knowledge and the skills necessary for careers in welding and to earn a digital badge in Welding. Students will also be better prepared for the Welding certification exam.

CREDITS
1.0

COURSE CODE
CTE0011

CARPENTRY

This competency-based course provides the students with a solid foundation in carpentry. Students will engage in virtual reality and interactive videos designed to teach students how to use basic measuring tools, hand tools, and machines commonly used in carpentry to construct basic projects. Additionally, students will examine various wood construction materials and their properties. Throughout the course, students will learn components of site and personal safety, and how to interpret detailed drawings used for construction. Upon completion of this course, the students will be equipped with work-related knowledge and the skills necessary for careers in carpentry. They will also acquire the knowledge and skills to earn a digital badge in Carpentry and will be better prepared for the Carpentry certification exam.

CREDITS
1.0

COURSE CODE
CTE0002

INTERMEDIATE CARPENTRY

Students learn intermediate carpentry and the essentials of construction site safety. The course also includes training in employability skills including goal setting, positive attitude, punctuality, teamwork, and taking initiative. Students will learn the safe and proper use of the commonly used hand and power tools. They will have the opportunity to develop and enhance their skills by building a variety of projects throughout the program.

CREDITS
1.0

COURSE CODE
TRA0001

RESIDENTIAL CONSTRUCTION

Students learn basics of residential construction including site safety. The course continues training in employability skills including goal setting, positive attitude, punctuality, teamwork, and taking initiative. Students will learn the safe and proper use of the residential and hand-used power tools. They will have the opportunity to develop and enhance their skills by building a variety of projects throughout the program. Successful completion of the carpentry pathway provides advanced placements into one of the carpenters union registered apprenticeship programs. These programs are designed to further a student's skills and give the student on-the-job experience leading to a successful career in the carpenters union, all while receiving a paycheck. A career with the carpenters union provides great pay and benefits, paths for advancement, and the opportunity for life-long learning.

CREDITS
1.0

COURSE CODE
TRA0003

COMMERCIAL CONSTRUCTION

Students learn basics of commercial construction including site safety. The course continues training in employability skills including goal setting, positive attitude, punctuality, teamwork, and taking initiative. Students will learn the safe and proper use of the commercial and hand-used power tools. They will have the opportunity to develop and enhance their skills by building a variety of projects throughout the program. Successful completion of the carpentry pathway provides advanced placements into one of the carpenters union registered apprenticeship programs. These programs are designed to further a student's skills and give the student on-the-job experience leading to a successful career in the carpenters union, all while receiving a paycheck. A career with the carpenters union provides great pay and benefits, paths for advancement, and the opportunity for life-long learning..

CREDITS
1.0

COURSE CODE
TRA0004

GAMING + SIMULATIONS

CODING

This competency-based course introduces computer programming concepts. In this course, students will learn basic programming concepts, terminology, and programming design. An emphasis will be placed on how to code programs, create testing plans, and write documentation. Using virtual reality, students will learn how to use variables, arrays, conditions, and loops when programming. Upon completion of this course, students will be equipped with the knowledge and skills to earn a digital badge in Computer Programming and will be better prepared for the certification exam.

CREDITS
1.0

COURSE CODE
CTE0003

INTERACTIVE MEDIA AND ESPORTS

This technical-level course is designed around interactive media. Designed to educate students on the ever-changing digital world, Gaming Concepts includes lessons on graphic design, animation, audio production, video production, and web design — all essential in the gaming world.

CREDITS
1.0

COURSE CODE
GAM0001

GAMING CONCEPTS

This Gaming Concepts course integrates the fun of video gameplay with key video gaming concepts that are applicable to real life. Player health, introductory technology tools, career research and impact on popular culture are just some of the lessons that will not only turn video gaming into purposeful play but will also bring students up to speed on the video game industry.

CREDITS
1.0

COURSE CODE
GAM0002

TRANSPORTATION + LOGISTICS

DRONES

This competency-based course is designed to prepare students with the knowledge and skills to obtain the Federal Aviation Administration Remote Pilot certificate. In this course, students will engage in virtual reality and interactive videos designed to teach them the skills and qualities of a pilot. Students will gain many skills including how weather affects the drone, and they will develop an understanding of the physics involved with flying. Students will be immersed in topics that include emergency procedures, preflight inspection, radio communication, VLOS operations, sectional charts, aerial photography, and search and rescue operations. Upon completion of this course, the students will be equipped with the knowledge and skills necessary to earn a digital badge in Drones and will be better prepared to obtain a Remote Pilot certificate.

CREDITS
1.0

COURSE CODE
CTE0006

CODING

This competency-based course introduces computer programming concepts. In this course, students will learn basic programming concepts, terminology, and programming design. An emphasis will be placed on how to code programs, create testing plans, and write documentation. Using virtual reality, students will learn how to use variables, arrays, conditions, and loops when programming. Upon completion of this course, students will be equipped with the knowledge and skills to earn a digital badge in Computer Programming and will be better prepared for the certification exam.

CREDITS
1.0

COURSE CODE
CTE0003

MS OFFICE

This course provides an overview of Microsoft applications including the Office Suite: Word, PowerPoint, and Excel. Microsoft Word is used to create documents. Microsoft PowerPoint is used to create presentations. Microsoft Excel is used to store, organize, and manipulate data.

CREDITS
1.0

COURSE CODE
BUS0001

LOGISTICS FUNDAMENTALS

The Logistics Fundamentals course is the foundational course for the Logistics pathway. Employment opportunities in the transportation, distribution, and logistics fields will be explored. In this course, the student will be exposed to all areas of distribution and logistics and will work toward fork truck certification.

CREDITS
1.0

COURSE CODE
LOG0001

LOGISTICS OPERATIONS

Logistics Operations is the second course in the Distribution and Logistics career pathway. Successful completion of this course along with Logistics Fundamentals will prepare students for the Certified Logistics Associate (CLA) exam. This course will introduce students to global supply chain logistics covering topics such as the global logistics environment, the importance of planning and logistics strategies, customer service, material handling safety and operations, global supply chain operations, and quality control. Students will be instructed through the use of lecture, guided inquiry, project-based learning, and interviews with industry professionals, authentic learning experiences, teamwork, simulations, and problem solving.

CREDITS
1.0

COURSE CODE
LOG0002

MATERIALS MANAGEMENT

Materials Management is the third course in the Distribution and Logistics pathway. Materials Management is concerned with planning, organizing, and control flow of materials from their initial purchase to destination. Topics include product receiving, proper materials storage, order processing in relation to warehouse operations, packaging materials, inventory control, safe handling of hazardous materials, transportation modes, dispatch, and routing and tracking operations. This course will prepare students for the Certified Logistics Technician (CLT) exam.

CREDITS
1.0

COURSE CODE
LOG0003

HEALTHCARE INNOVATIONS

MEDICAL ASSISTANT

This competency-based course is designed to prepare students with the knowledge and clinical skills necessary to assess, plan, provide, and evaluate care for patients in varied healthcare settings. Students will engage with interactive videos learning first aid principles, diagnostic testing, and laboratory procedures. Emphasis will be placed on safety, medical law, and medical interventions. Upon completion of this course, students will be equipped with the knowledge and skills to earn a digital badge as a Medical Assistant and will be better prepared for the certification exam. Ultimately, this course is designed to provide students with a competitive edge for entry into the healthcare global marketplace.

CREDITS
1.0

COURSE CODE
CTE0008

NURSING ASSISTANT

This competency-based course is designed to prepare students with knowledge of the basic nursing assistant skills which are necessary to assess, plan, provide, and evaluate care for patients in various healthcare settings. Students will engage with interactive videos while learning about infection control, personal care skills, mental health needs, and legal responsibilities. Using virtual reality, students will learn how to obtain and record standard vital signs, identify basic body parts, demonstrate wheelchair assistance and ambulation, and perform a modified bed bath. Upon completion of this course, students will be equipped with the knowledge and skills to earn a digital badge as a Nursing Assistant and will be better prepared for the certification exam. Ultimately, this course is designed to provide students with a competitive edge for entry into the healthcare global marketplace.

CREDITS
1.0

COURSE CODE
CTE0009

BIOTECHNOLOGY

This competency-based course provides the students with a solid foundation in biotechnology. Students will engage in interactive videos designed to teach students about career paths, research, data analysis, laboratory safety, and the use of laboratory equipment in the field of biotechnology. Additionally, students will examine topics that include Polymerase Chain Reaction (PCR), analysis of DNA structure, DNA replication, and the DNA purification process. Students will use virtual reality to demonstrate their knowledge of laboratory equipment by exploring the use of micropipettes, serological pipettes, and spectrophotometers. Students will also discover how to make a molar solution using virtual reality. Upon completion of this course, the students will be equipped with work-related knowledge and the skills necessary for careers in biotechnology. They will also acquire the skills and knowledge to earn a digital badge in Biotechnology and will be better prepared for the Biotechnology certification exam.

CREDITS
1.0

COURSE CODE
CTE0001


SPHYGMOMANOMETER

FORENSIC SCIENCE + JUSTICE

CRIMINAL JUSTICE

This competency-based course is designed to provide students with an overview of the criminal justice system. In the Criminal Justice course, students will engage in virtual reality and interactive videos designed to test their visual memory and ability to apply their skills to effectively manage a crime scene. Students will become immersed in topics that include criminal and constitutional law, security, and communications. Students will review basic law enforcement skills which cover tactics, methods, and skills utilized by law enforcement. These concepts should be taken into consideration when taking this course and assessing implementation options. Upon completion of this course, students will be equipped with the knowledge and skills to earn a digital badge in Criminal Justice and will be better prepared for the certification exam.

CREDITS
1.0

COURSE CODE
CTE0004

DRONES

This competency-based course is designed to prepare students with the knowledge and skills to obtain the Federal Aviation Administration Remote Pilot certificate. In this course, students will engage in virtual reality and interactive videos designed to teach them the skills and qualities of a pilot. Students will gain many skills including how weather affects the drone, and they will develop an understanding of the physics involved with flying. Students will be immersed in topics that include emergency procedures, preflight inspection, radio communication, VLOS operations, sectional charts, aerial photography, and search and rescue operations. Upon completion of this course, the students will be equipped with the knowledge and skills necessary to earn a digital badge in Drones and will be better prepared to obtain a Remote Pilot certificate.

CREDITS
1.0

COURSE CODE
CTE0006

INTRODUCTION TO FORENSIC SCIENCE

In this introductory course, students will learn the history, major disciplines, and fundamental principles of forensic science as they follow the sequence of a case from crime scene investigation and evidence collection through the various roles and functions of a forensic science laboratory. This course will also introduce students to what makes a forensic "expert," and the ethical obligations that guide the expert. In a final class project, students will participate in a mock crime scene investigation, employing skills and principles learned throughout this unit to help solve a staged crime. Special presentations will draw upon the JFK assassination and the murder of JonBenet Ramsey to explicate what can go wrong in criminal investigations and how and why crime scene investigative techniques have evolved in recent decades.

CREDITS
0.5

COURSE CODE
WFS0001

INTRODUCTION TO LAW AND JUSTICE

In this course, students will be introduced to the history, philosophy, and fundamental principles and procedures of the American system of justice. Beginning with our criminal legal arena – the primary context in which forensic scientific evidence and expertise is applied – the course will also briefly address civil law and procedure and the fundamentals of family law before moving on to a sequential review of the steps in a typical criminal legal case, from discovery through the trial process to sentencing and corrections. The course will conclude with an examination of the phenomenon of wrongful convictions and efforts to remedy them, including a final class project involving the mock appeal of a criminal conviction based on flawed science.

CREDITS
0.5

COURSE CODE
WFS0002

SCIENTIFIC APPLICATION IN THE LAW

In this course, students will begin to put together elements from the previous courses of Introduction to Forensic Science and Introduction to Law and Justice by becoming familiar with some of the most common examples of scientific application to investigative matters. By coming to understand the types and combinations of expertise required by various criminal and civil legal situations, students will also gain a critical appreciation for the highly collaborative nature of forensic investigation. Lectures and demonstrations in this course will strive to connect specific scientific disciplines with associated areas of law. In a final class project, students will be assigned a variety of scientific and investigative roles and charged with putting together a plan for addressing a mock legal matter.

CREDITS
0.5

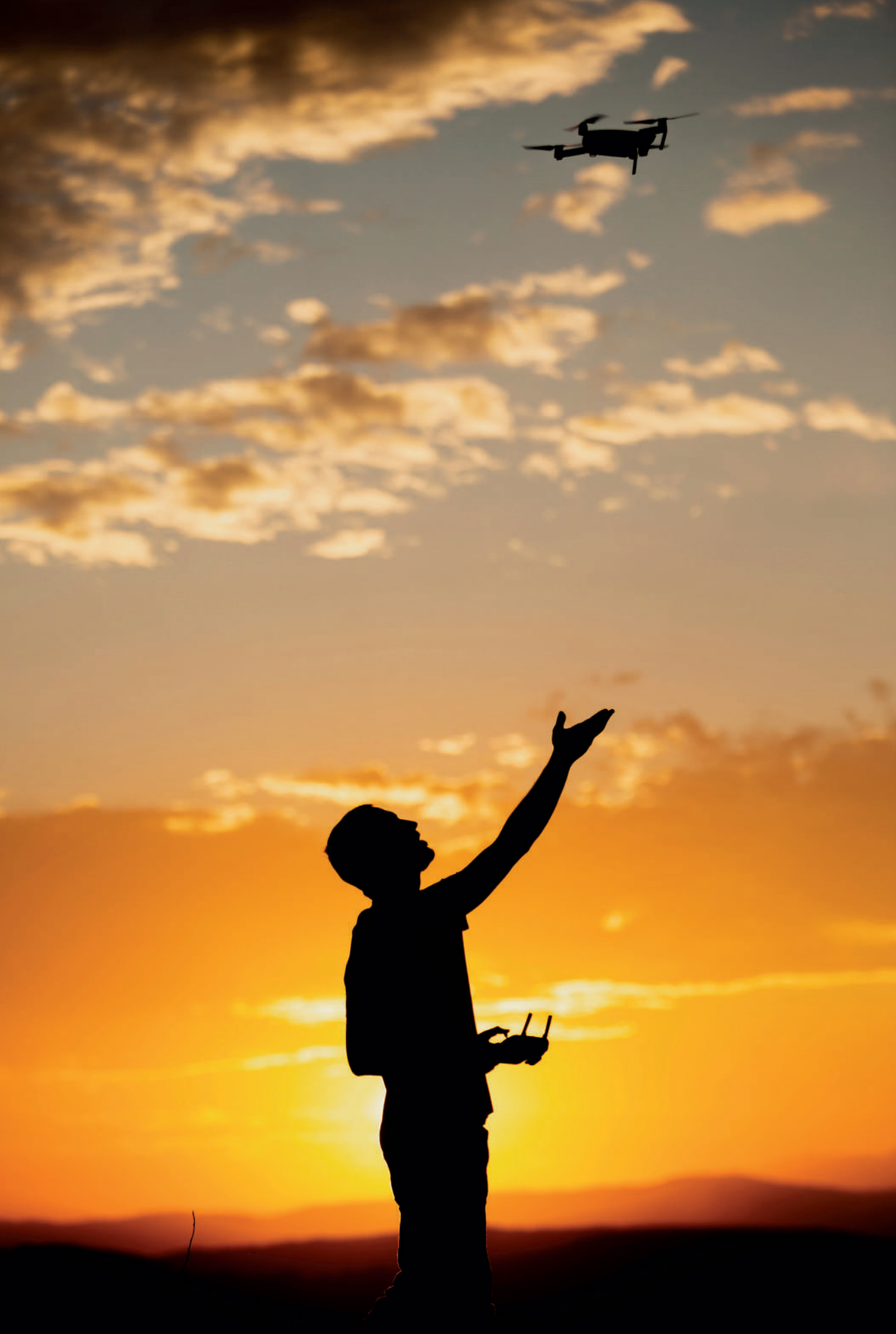
COURSE CODE
WFS0003

FORENSIC SCIENCE IN THE COURTROOM

In this course, students will learn about our nation's court system: the roles of judges, trial attorneys, and jurors, and how forensic scientific evidence and expertise is brought to bear on the adjudication of criminal and civil legal matters. In order to provide students a full appreciation of the process and collaborative nature by which justice is achieved, students will learn what attorneys and experts need from each other, how evidence is rendered admissible, and how forensic scientists are qualified as expert witnesses. In a final class project, students will be assigned the roles of lawyers, expert witnesses, and jurors and participate in a mock criminal trial based on the fact pattern.

CREDITS
0.5

COURSE CODE
WFS0004



AVIATION TECHNOLOGY

DRONES

This competency-based course is designed to prepare students with the knowledge and skills to obtain the Federal Aviation Administration Remote Pilot certificate. In this course, students will engage in virtual reality and interactive videos designed to teach them the skills and qualities of a pilot. Students will gain many skills including how weather affects the drone, and they will develop an understanding of the physics involved with flying. Students will be immersed in topics that include emergency procedures, preflight inspection, radio communication, VLOS operations, sectional charts, aerial photography, and search and rescue operations. Upon completion of this course, the students will be equipped with the knowledge and skills necessary to earn a digital badge in Drones and will be better prepared to obtain a Remote Pilot certificate.

CREDITS
1.0

COURSE CODE
CTE0006

PRIVATE PILOT GROUND SCHOOL/FUNDAMENTALS OF AEROSPACE

This course is designed as the foundational course for the aviation pathway. Students will gain a fundamental knowledge base in aviation history and regulations, the basic principles of flight, aerospace careers, factors influencing work systems, aerospace technologies, and basic aviation meteorology. These concepts can later be applied to various aerospace occupations. Classroom and lab activities will assure students a thorough understanding of the aerospace environment.

CREDITS
1.0

COURSE CODE
AVI0001

PRIVATE PILOT GROUND SCHOOL/FLIGHT OPERATIONS 1

Navigation and Communication are essential to the safe operation of aircraft within the airspace system. This course provides a foundation that enables the student to apply the basics of aircraft navigation and utilize efficient communication methods for safe aircraft operations.

CREDITS
1.0

COURSE CODE
AVI0002

PRIVATE PILOT GROUND SCHOOL/FLIGHT OPERATIONS 2

Atmospheric dynamics and concepts are addressed to build a meteorological foundation that will enable students to understand environmental variables that create and change the earth's weather. Meteorological techniques will be used in analyzing, charting, and forecasting weather patterns, and students will apply learned skills to the aeronautical needs and procedures of the air transportation industry. Upon completion of the aviation pathway, the students should be ready to pass the written part of the FAA Private Pilot exam, on their way to earning their Private Pilot License.

CREDITS
1.0

COURSE CODE
AVI0003

CORE ACADEMICS

ALGEBRA 1

This course takes students on a journey through algebraic concepts and applications. The course focuses on linear equations, inequalities, functions, graphing, systems of equations, polynomials, factoring, quadratic equations, probability, statistics, rational expressions, roots, and radicals. Students build critical-thinking skills and problem-solving techniques required to grasp algebraic fundamentals. At the end of the course, students have a knowledge of and appreciation for algebra and are prepared for future mathematics courses. Through out the course, students are evaluated through diverse assessments specifically designed to prepare them for the Pennsylvania Keystone Exam.

CREDITS
1.0

COURSE CODE
MAT0001

ALGEBRA 2

In this course, students learn algebraic concepts such as linear functions, linear systems, matrices, quadratic functions, polynomial functions, polynomials, exponential functions, logarithmic functions, rational functions, radical functions, conic sections, probability, statistics, sequence, series, and trigonometric functions. Through out the course, students develop critical-thinking skills and problem-solving techniques. By the end of this course, students gain knowledge of and appreciation for algebra and problem solving that prepare them for future mathematics courses.

CREDITS
1.0

COURSE CODE
MAT0002

AMERICAN HISTORY

This course takes students on a journey through the key events that have shaped America as a nation--from the end of the Civil War in 1865 to the height of the Cold War in 1980. The journey begins with Reconstruction, a period of great transition and opportunity to heal a broken nation. Students witness the great migration westward and explore how the Industrial Revolution and waves of immigration fueled the flames of the American spirit. The course details the challenges America faced and how equality was elusive for populations of Native Americans, African Americans, immigrants, and women. Students learn how the core values of the Founding Fathers eventually prevailed and led to the women's suffrage and civil rights movements. The course closely examines the impact of war, with units covering the role of the United States in World War I, Word War II, the Korean War, and the Vietnam War. Throughout their journey, students encounter the great political, industrial, military, and human rights leaders who shaped America into a beacon of hope.

CREDITS
1.0

COURSE CODE
SOC0001

BIOLOGY

The science of biology is large, complex, and constantly changing. This course provides students with a broad and interactive experience covering the main topics of biological science. Topics range from cell reproduction to the diversity of life. Students also learn about the chemical components of life, the process of energy conversion, and life's functions. The course explores genetics incorporating the latest scientific research. Finally, the course covers ecology to raise students' awareness of the many challenges and opportunities in the modern biological world. Throughout the course, students complete lab activities that reinforce the material and provide an opportunity to apply their knowledge through interactive experiments and activities. Throughout the course, students are evaluated through diverse assessments specifically designed to prepare them for the Pennsylvania Keystone Exam.

CREDITS
1.0

COURSE CODE
SCI0001

CHEMISTRY

Chemistry is an important science that challenges students to apply their studies in previous sciences to new theories, models, and problems. The course begins with a discussion of the history and importance of chemical principles, moves through the various models of the atom and chemical reactions, explores relationships among liquids, gases, and solids, and investigates the role of energy in these relationships. The course ends with a unit on organic chemistry, a branch of the science that focuses on the molecules that are important to living things. Lab activities throughout the course reinforce the material and provide an opportunity for students to apply their knowledge through hands-on experiments and activities.

CREDITS
1.0

COURSE CODE
SCI0002

EARTH SCIENCE

Earth Science is the combined study of how geology, physics, chemistry, and biology impact the universe, of the Earth's internal processes. and of the structure and relationships of the natural world. In this interactive and engaging course, students study air, water, and the physical processes that shape the physical world, and how human civilization has impacted the balance of nature. Students learn about the modern science behind topics such as continental drift, fossil dating, the cause of the seasons, natural disasters, ocean ecosystems, and alternative energy sources. At the end of this course, students have an understanding of and appreciation for earth science, and a solid foundation for future science studies.

CREDITS
1.0

COURSE CODE
SCI0003

ENVIRONMENTAL SCIENCE

Environmental Science, sometimes referred to as Ecology, is the study of the relationships and interdependence of organisms and their connection to the nonliving, or abiotic, factors in the natural world. This course provides students with a profile of the living relationships, abiotic factors, human influences, and current state of Earth's ecosystems. The course begins with a review of science as a process and the general components of Earth's structure that impact life. It then progresses through a study of the living groups and their relationships to one another, focusing on the balance achieved by nature through these relationships. The course explores populations and provides examples of unchecked growth and rapid extinction in the context of their effect on ecosystems. The course dedicates a unit to aquatic ecosystems and organisms, and the results of human impact. After covering the influence of energy extraction, production, and use, the course ends by examining the positive influence humans can have on the environment through conservation and sound management practices.

CREDITS
0.5

COURSE CODE
SCI0004

GEOMETRY

This course focuses on parallel lines, perpendicular lines, triangles, circles, polygons, area, volume, similarity, trigonometry, geometric reasoning, and proofs. This course also highlights building critical thinking skills and problem-solving techniques required to help students grasp geometric concepts. By the end of this course, students have knowledge of and appreciation for geometry and problem-solving that prepare them for future mathematics courses.

CREDITS
1.0

COURSE CODE
MAT0003

PHYSICS

This course is designed to provide students with an overview of traditional physics and the latest, most modern research in the field today. Beginning with Newtonian mechanics, students learn that every object is acted upon by multiple and predictable forces. The course moves on to investigate the laws of thermodynamics, covering fluid mechanics and the relationship between matter and energy. The course also explores the various models used to explain and apply the universal forces of electricity and magnetism. Students learn the characteristics of waves and the basics of optics before the final set of lessons on atomic physics. Here students review the characteristics of the atom and its elemental particles and apply their knowledge to modern physics.

CREDITS
1.0

COURSE CODE
SCI0005

PRE-CALCULUS

Pre-Calculus helps students gain the knowledge they need for success in calculus and other high school math courses. The course focuses on linear, rational, polynomial, exponential, and logarithmic functions, systems of equations, systems of inequalities, matrices, trigonometry, series, sequence, probability, vectors, and analytical geometry. Throughout the course, students work to improve their critical thinking skills and problem solving techniques. By the end of this course, students gain knowledge of and appreciation for calculus and its applications.

CREDITS
1.0

COURSE CODE
MAT0004

FINANCIAL MATH

Financial Math is a substantive modeling course that explores real world financial phenomena including interpreting and justifying reasoning to make data-supported financial decisions. Financial Math uses advanced algebra in the content areas of consumer mathematics, discretionary spending, banking, credit, auto and home ownership, employment, taxes, investments, entrepreneurship, retirement, & budgeting. The Financial Math course is intended for all students who are interested in finance and business. Algebra I is a prerequisite.

CREDITS
1.0

COURSE CODE
MAT0005

U.S. GOVERNMENT

This stimulating course offers students a comprehensive examination of the U.S. government. Students explore the evolution of American democracy from its birth in the eighteenth century to the expansive role of federal, state, and local governments today. The course covers topics such as changes to the Constitution, the function of the Supreme Court, the structure of Congress, and the importance of the media. The course explores the relationship between the political parties and lobbyists and the process of monitoring and funding federal elections. Students understand the roles of state and local governments and their impact on our daily lives. At the end of this course, students have a knowledge of and appreciation for the workings and history of the U.S. government and its impact on American society.

CREDITS
1.0

COURSE CODE
SOC0006

WORLD GEOGRAPHY

This course explores the world's geographical divisions and the differences between Earth and the other planets in our solar system. In addition to Earth's geographical divide, the course explores how the cultural divide between countries impacts international relations. Through the study of geography, students analyze energy usage and explore ways to make the most of our planet without abusing its resources. The study of world geography through historical, cultural, physical, and economic lenses offers students a different perspective and understanding of our world.

CREDITS
1.0

COURSE CODE
SOC0007

WORLD HISTORY

World History takes students on a journey through the events that have shaped the modern world and the leaders who changed the course of history. The material is organized sequentially, exploring history from 1400 CE to the present day. Topics covered include the Renaissance, the French Revolution, the Industrial Revolution, and the World Wars. At the end of this course, students have an appreciation for the relationship between past events and the characteristics of the present day.

CREDITS
1.0

COURSE CODE
SOC0008

ENGLISH 9

English 9 provides an introduction to informational and literary genres and lays a foundation of critical reading and analytical writing skills. Through texts that range from essays, speeches, articles, and historical documents to a novel, a play, poetry and short stories, students analyze the use of elements of literature and nonfiction. In order to develop their writing skills and respond to claims, students learn to formulate arguments and use textual evidence to support their position. To hone their listening and speaking skills, students engage with a variety of media types through which they analyze and synthesize information, discuss material, create presentations, and share their work.

CREDITS
1.0

COURSE CODE
ELA0001

ENGLISH 10

English 10 builds upon students' foundation of critical reading and analytical writing skills. Through texts that range from investigative journalism, essays, articles and historical documents to novels, dramas, poetry and short stories, students analyze the use of elements of literature and nonfiction. In order to develop their writing skills and respond to claims, students learn to refine arguments and organize evidence to support their position. To hone their listening and speaking skills, students engage with a variety of media types through which they analyze and synthesize information, discuss material, create presentations, and share their work.

CREDITS
1.0

COURSE CODE
ELA0002

ENGLISH 11

An engaging study of the American experience through literature, this course explores a variety of types and genres of writing, including autobiography, biography, articles, dramas, speeches, and excerpts from novels. Periods covered include the origins of early American literature to the 1800's, the New England Renaissance, Slavery and the American Civil War, Realism and Naturalism, the Native American experience, the Early 20th Century, the Depression Era and World War II, the Postwar Era, the Early Contemporary Era, and the Contemporary Era. Rigorous and balanced instruction for reading, writing, speaking, listening, and language skills support students in independent learning, while collaborative learning activities and projects encourage students to build community in the classroom.

CREDITS
1.0

COURSE CODE
ELA0003

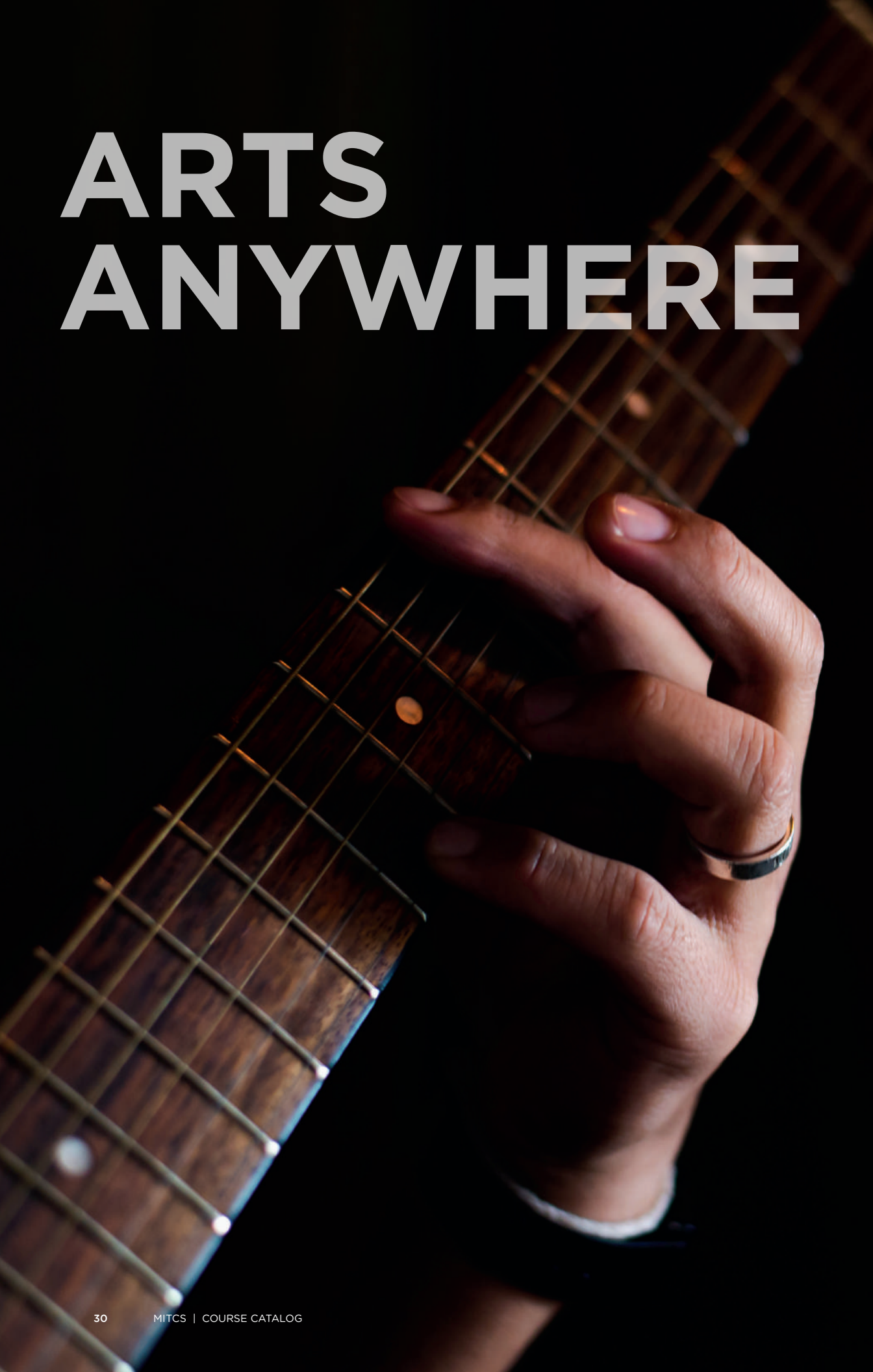
ENGLISH 12

This study of the literature and ideas of Western civilization covers the Anglo-Saxon period, through the Renaissance and the Romantic and Victorian ages, and into the Modern and Postmodern eras. Students will confront a range of topics and ideas across the humanities through a survey of literary genres, including sagas and legends, poetry, drama, and both short- and long-form fiction and nonfiction works. English 12 offers comprehensive writing assignments that provide students with opportunities to develop their writer's voice. Collaborative activities and lessons empower students to make connections between great literature and their personal lives and help prepare students for success in both college and career pathways.

CREDITS
1.0

COURSE CODE
ELA0004

ARTS ANYWHERE



AMERICAN MUSIC APPRECIATION

Music in America has a rich history. In American Music Appreciation, students will navigate this unique combination of culture and creativity that spawned jazz, rock and roll, and hip hop. From early church music to 21st century pop, students will gain a new understanding of the key developments, people and genres in American music.

CREDITS
0.5

COURSE CODE
ART0001

CLASSICAL MUSIC APPRECIATION

What defines classical music? Students in Classical Music Appreciation will gain an understanding of the structure of conventional music that follows long-established principles, as compared to more spontaneous music, like folk and jazz. By studying composers and the society that shaped them, students will gain a new appreciation for the classical music form.

CREDITS
0.5

COURSE CODE
ART0002

EXPLORATIONS IN MUSIC I

Music can be simple, yet so complex. Students in Explorations in Music I study the basics of music, instrument families, music notation, and organization. By analyzing the ways music is connected to other disciplines and industries as well as training on basic terminology, students will progress in their understanding of music.

CREDITS
0.5

COURSE CODE
ART0003

EXPLORATIONS IN MUSIC II

How to understand the music of a symphony or recognize a song from Japan? In Explorations in Music II, students will study the different forms of music and their instrumentations. Students will be able to identify instruments and music from different cultures and different genres.

CREDITS
0.5

COURSE CODE
ART0004

MUSIC AROUND THE WORLD

There is a vibrant chord of music that runs through every culture in the world. Students in Music Around the World will explore the music of Africa, Asia, Europe, and the Americas. From Finland to Mongolia to Zimbawe, students will study the impact a country's history and societal values have on the music of that nation.

CREDITS
0.5

COURSE CODE
ART0005

MUSIC THEORY I

Understand the beautiful language of music. In Music Theory I, students will learn the "alphabet" that makes up music, including music notation. How to read music and to follow the structure, including pitch, rhythm, harmony, scales, keys, and chords, empowers any avid music listener or future musician.

CREDITS
0.5

COURSE CODE
ART0006

MUSIC THEORY II

Elevate music comprehension by understanding the concepts and rules. Music Theory II is both theoretical and practical, and encompasses advanced harmonic and rhythmic structures, instrumentations, and key changes. Through sight and sound, students will deepen their appreciation of music with a grasp of music theory.

CREDITS
0.5

COURSE CODE
ART0007

CHOREOGRAPHY AND CHOREOGRAPHERS

Choreography is a statement about society, culture, and history. Students in Choreography and Choreographers will gain insight into the creative processes and will trace the work of influential choreographers from the 16th century to the present.

CREDITS
0.5

COURSE CODE
ART0008

DANCE AROUND THE WORLD

Throughout human history some form of dance has evolved in every world population. Students in Dance Around the World will explore dance as a ritual, religious, and performed art from the primitive ages through the 19th century. Historic and cultural perspectives will be examined to study those influences on the work of choreographers and dancers.

CREDITS
0.5

COURSE CODE
ART0009

DANCE IN AMERICA

The history of American dance is complex and rich with innovation. Dance in America takes the student on a journey through the social and political climates that fostered its development. From early ballet companies to Broadway and music videos, numerous choreographers, artists, and dancers have contributed to the evolution of American dance.

CREDITS
0.5

COURSE CODE
ART0010

EXPLORATIONS IN DANCE I

Grace, beauty, and the pursuit of excellence are hallmarks of ballet and modern dance companies. In Explorations in Dance I, students will study the foundations of the ballet style from clothing and training to rehearsal and performance. Students will meet the artists on stage and behind the scenes who help to create the magic of ballet and modern dance.

CREDITS
0.5

COURSE CODE
ART0011

EXPLORATIONS IN DANCE II

The bright lights of Broadway have showcased many dancers' talents. Students in Explorations in Dance II will be introduced to the audition process, learn about the roles of agents and unions, as well as explore some of the most exciting Broadway shows. The basics of jazz and tap dance are introduced, and the impact that dance has on musical theatre will be discussed.

CREDITS
0.5

COURSE CODE
ART0012

INTRODUCTION TO DANCE

What inspires choreographers and dancers? Students in Introduction to Dance will study the main elements of dance: space, time, and energy. They will discover how a choreographer uses these elements to create a dance piece, and explore how dancers respond with their own creativity.

CREDITS
0.5

COURSE CODE
ART0013

INTRODUCTION TO DIGITAL PHOTOGRAPHY

Capturing a special moment in a photograph is powerful. In Introduction to Digital Photography, students will study the history of photography as well as the basic operations of a digital camera. As they are introduced to different styles of photography and photographers, students will begin to develop their skills as well as their own voice in photography.

CREDITS
0.5

COURSE CODE
ART0014

EXPLORATIONS IN FILM AND TELEVISION

The culture of cinema and broadcast television tell a unique story of American history and innovation. Students in Explorations in Film and Television will be introduced to the technology, industry icons, and stars of the big and small screen. By studying and writing about film and television, students will analyze technological and cultural trends and understand how to be an informed viewer in the future.

COURSE CODE
ART0015

CREDITS
0.5

PHOTO MANIPULATION

Manipulating and altering an image to create a new work allow for a new interpretation. By using advanced software tools, including Photoshop, students in Photo Manipulation will learn strategies for creating complex imagery. Students will acknowledge the principals of design, editing and repairing still images or creating unique new concepts in their art.

CREDITS
0.5

COURSE CODE
ART0016

PHOTOJOURNALISM

A powerful image can tell an eloquent story without any words. Students in Photojournalism will meet some of the pioneers who set the standards for this unique way of storytelling. As they study the principal types of photojournalism and the ethical responsibilities a photojournalist has behind the lens, students will develop their own storytelling skills through their writing and their photographs.

CREDITS
0.5

COURSE CODE
ART0017

THE WORLD OF STEAM

Each aspect of the arts relies on science and technology. In The World of STEAM, students will learn why the eye sees color, how a dancer uses gravity, and what makes a sound wave travel. The arts, science, and technology are intertwined, now more than ever. Understanding the science behind the art will elevate students to a new level of creativity.

CREDITS
0.5

COURSE CODE
ART0018

ARTS AND SOCIETY I: 4000 BCE — 1750 CE

Arts are not created in a vacuum. They are the result of the people and cultures that create them. Arts and Society I takes the student on a chronological walk through history, stopping along the way at a variety of historical, political, cultural, and artistic key moments. From 4000 BCE to 1750 AD, the student analyzes the relationship between the societal culture and the arts being produced.

CREDITS
0.5

COURSE CODE
ART0019

ARTS AND SOCIETY II: 1751 — PRESENT

How do the people and the cultures of society affect the art around them? Students in Arts and Society II step into history and explore key moments from 1751 – 2014 in politics, culture, and art. Arts and Society enhances students' global awareness as they learn to interpret these significant events and their impact on the arts.

CREDITS
0.5

COURSE CODE
ART0020

EXPLORATIONS IN ARTS CAREERS

For every Broadway dancer, every television star, every pop singer, there are countless people behind the scenes helping to make it happen. Explorations in Arts Careers introduces students to the skills that are part of the many fascinating careers in the arts. Studying the arts creates independent and innovative thinkers and many doors are open to an artist with the proper training.

CREDITS
0.5

COURSE CODE
ART0021

ART HISTORY I: 30,000 BCE – 1900 CE

Interpreting the origins of art from the earliest cave paintings gives a student a unique perspective on their own work. In Art History I, students will analyze various art forms including painting, sculpture, and architecture over changing periods of time. Students will build their own cultural inventory studying the social, political, and religious movements that affect art.

CREDITS
0.5

COURSE CODE
ART0022

ART HISTORY II: 1901 – PRESENT

Appreciating the cultural context of art in the modern era relies on analyzing artistic principles, abstract symbolism, and design techniques. Students in Art History II will explore the social, political, and religious trends from Post-Impressionism to street art and understand the formal and conceptual issues that foster changes in art throughout history.

CREDITS
0.5

COURSE CODE
ART0023

STUDIO ARTS I: TECHNIQUES AND TOOLS

Creativity flourishes with the right foundation. In Studio Arts I, the student artist will lay the groundwork for their art by practicing unique exercises to develop drawing, painting, and mixed media skills. Incorporating their knowledge of composition, design, colors, and forms, students will use the appropriate materials and tools to work from realism to abstract.

CREDITS
0.5

COURSE CODE
ART0024

STUDIO ARTS II: CONCEPTS AND EXPRESSIONS

Developing a unique personal style and creating complex imagery is possible for any artist. Students in Studio Arts II will engage in techniques that take their work to a more sophisticated level. Analyzing other artists and their works will help the student artist find deeper meaning and new interpretations to create a cohesive result.

CREDITS
0.5

COURSE CODE
ART0025

EXPLORATIONS IN THEATRE I

It's enjoyable to watch a well-done performance. Explorations in Theatre I helps the student understand the effort that goes into that performance. Through the perspective of the performer, the playwright, and the director, students will gain an appreciation of the artists who have contributed to both musical and non-musical performances and an understanding of the world of the actor.

CREDITS
0.5

COURSE CODE
ART0026

EXPLORATIONS IN THEATRE II

Behind the actor are dozens of artists enhancing that performance. Students in Explorations in Theatre II will build a vocabulary of the people and the equipment that work behind the scenes in the theater. Understanding the business aspects of producing a performance as well as the artistic considerations in technical production enhances future audience members appreciation for the theatre.

CREDITS
0.5

COURSE CODE
ART0027

PERSONAL LEARNING TIME

BIOTECHNOLOGY

This competency-based course provides the students with a solid foundation in biotechnology. Students will engage in interactive videos designed to teach students about career paths, research, data analysis, laboratory safety, and the use of laboratory equipment in the field of biotechnology. Additionally, students will examine topics that include Polymerase Chain Reaction (PCR), analysis of DNA structure, DNA replication, and the DNA purification process. Students will use virtual reality to demonstrate their knowledge of laboratory equipment by exploring the use of micropipettes, serological pipettes, and spectrophotometers. Students will also discover how to make a molar solution using virtual reality. Upon completion of this course, the students will be equipped with work-related knowledge and the skills necessary for careers in biotechnology. They will also acquire the skills and knowledge to earn a digital badge in Biotechnology and will be better prepared for the Biotechnology certification exam.

CREDITS
1.0

COURSE CODE
CTE0001

CARPENTRY

This competency-based course provides the students with a solid foundation in carpentry. Students will engage in virtual reality and interactive videos designed to teach students how to use basic measuring tools, hand tools, and machines commonly used in carpentry to construct basic projects. Additionally, students will examine various wood construction materials and their properties. Throughout the course, students will learn components of site and personal safety, and how to interpret detailed drawings used for construction. Upon completion of this course, the students will be equipped with work-related knowledge and the skills necessary for careers in carpentry. They will also acquire the knowledge and skills to earn a digital badge in Carpentry and will be better prepared for the Carpentry certification exam.

CREDITS
1.0

COURSE CODE
CTE0002

CODING

This competency-based course introduces computer programming concepts. In this course, students will learn basic programming concepts, terminology, and programming design. An emphasis will be placed on how to code programs, create testing plans, and write documentation. Using virtual reality, students will learn how to use variables, arrays, conditions, and loops when programming. Upon completion of this course, students will be equipped with the knowledge and skills to earn a digital badge in Computer Programming and will be better prepared for the certification exam.

CREDITS
1.0

COURSE CODE
CTE0003

CRIMINAL JUSTICE

This competency-based course is designed to provide students with an overview of the criminal justice system. In the Criminal Justice course, students will engage in virtual reality and interactive videos designed to test their visual memory and ability to apply their skills to effectively manage a crime scene. Students will become immersed in topics that include criminal and constitutional law, security, and communications. Students will review basic law enforcement skills which cover tactics, methods, and skills utilized by law enforcement. These concepts should be taken into consideration when taking this course and assessing implementation options. Upon completion of this course, students will be equipped with the knowledge and skills to earn a digital badge in Criminal Justice and will be better prepared for the certification exam.

CREDITS
1.0

COURSE CODE
CTE0004

CULINARY ARTS

This competency-based course provides an overview of the basic culinary fundamentals and standard practices leading to a career pathway for Culinary Arts. In this course, students will learn culinary techniques such as knife-handling skills and the recognition, selection, and proper use of tools and equipment. An emphasis will be placed on identifying and preparing a variety of foods and recipes as well as mastering conversions through the use of proper scaling and measurement techniques. Using virtual reality, students will prepare standard recipes while effectively managing time, accurately measuring ingredients, and appropriately using kitchen equipment. Food safety and sanitation techniques will align to industry-recognized certifications. Upon completion of this course, students will be equipped with the knowledge and skills to earn a digital badge in Culinary Arts and will be better prepared for the certification exam.

CREDITS
1.0

COURSE CODE
CTE0005

DRONES

This competency-based course is designed to prepare students with the knowledge and skills to obtain the Federal Aviation Administration Remote Pilot certificate. In this course, students will engage in virtual reality and interactive videos designed to teach them the skills and qualities of a pilot. Students will gain many skills including how weather affects the drone, and they will develop an understanding of the physics involved with flying. Students will be immersed in topics that include emergency procedures, preflight inspection, radio communication, VLOS operations, sectional charts, aerial photography, and search and rescue operations. Upon completion of this course, the students will be equipped with the knowledge and skills necessary to earn a digital badge in Drones and will be better prepared to obtain a Remote Pilot certificate.

CREDITS
1.0

COURSE CODE
CTE0006

FUNDAMENTALS OF ROBOTICS

Robotics continues to grow, and so will the demand for people who work with them. This competency-based course is designed to provide students with the fundamentals of electronics, computer programming, and engineering design that will lay a foundation on which to build a solid knowledge base about robotics. Students will become immersed in topics that include Ohm's Law, series and parallel circuits, direct and alternating current, DC motors, robot sensor operation, and much more! The students will use interactive video and virtual reality to learn how to program a robot. Upon completion of this course, students will be equipped with the knowledge and skills to earn a digital badge in Fundamentals of Robotics and will be better prepared for the certification exam.

CREDITS
1.0

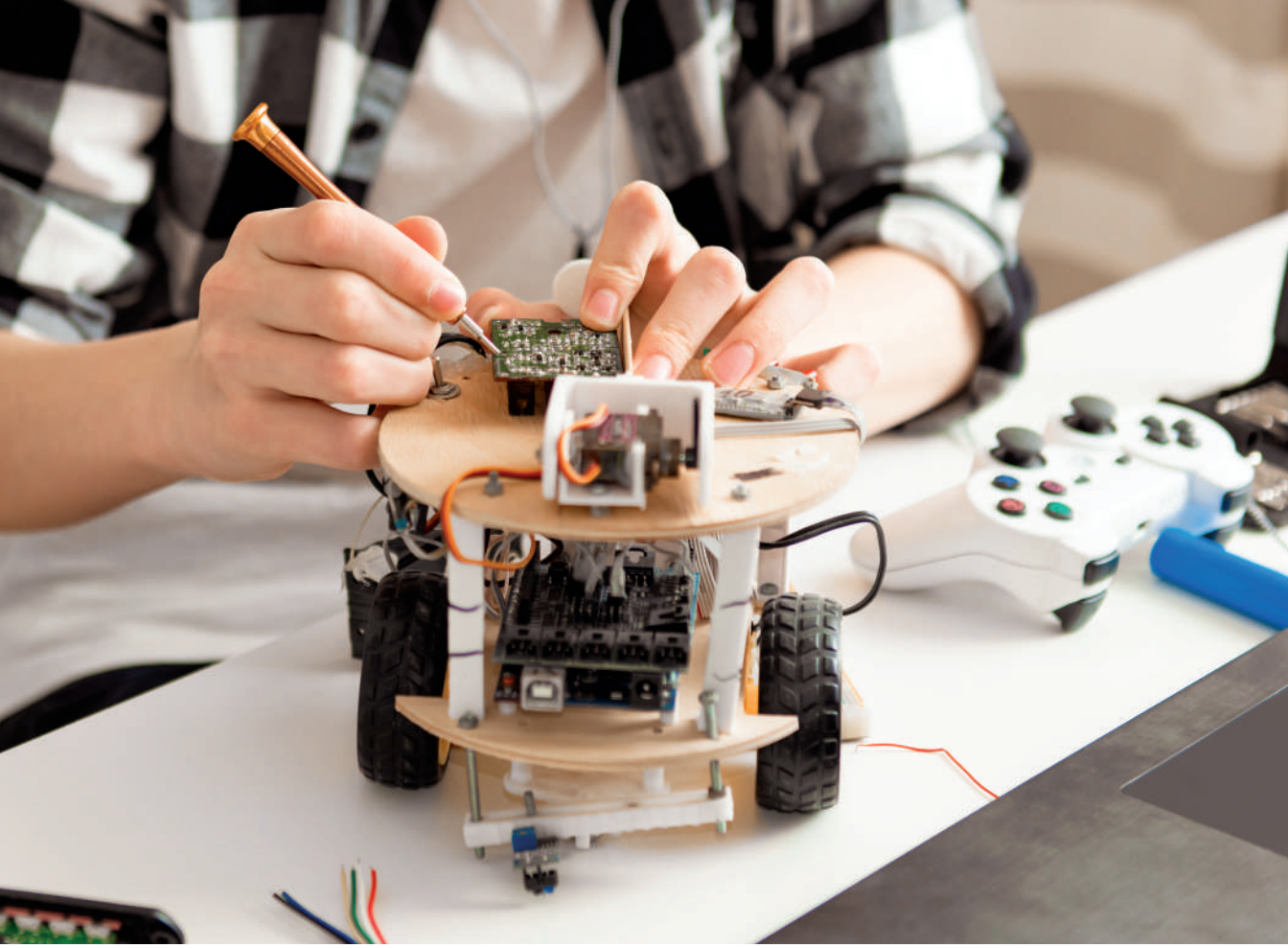
COURSE CODE
CTE0007

MEDICAL ASSISTANT

This competency-based course is designed to prepare students with the knowledge and clinical skills necessary to assess, plan, provide, and evaluate care for patients in varied healthcare settings. Students will engage with interactive videos learning first aid principles, diagnostic testing, and laboratory procedures. Emphasis will be placed on safety, medical law, and medical interventions. Upon completion of this course, students will be equipped with the knowledge and skills to earn a digital badge as a Medical Assistant and will be better prepared for the certification exam. Ultimately, this course is designed to provide students with a competitive edge for entry into the healthcare global marketplace.

CREDITS
1.0

COURSE CODE
CTE0008



NURSING ASSISTANT

This competency-based course is designed to prepare students with knowledge of the basic nursing assistant skills which are necessary to assess, plan, provide, and evaluate care for patients in various healthcare settings. Students will engage with interactive videos while learning about infection control, personal care skills, mental health needs, and legal responsibilities. Using virtual reality, students will learn how to obtain and record standard vital signs, identify basic body parts, demonstrate wheelchair assistance and ambulation, and perform a modified bed bath. Upon completion of this course, students will be equipped with the knowledge and skills to earn a digital badge as a Nursing Assistant and will be better prepared for the certification exam. Ultimately, this course is designed to provide students with a competitive edge for entry into the healthcare global marketplace.

CREDITS
1.0

COURSE CODE
CTE0009

THE ART OF TAEKWONDO: YELLOW BELT

The Tenets of Taekwondo include: Courtesy, Integrity, Perseverance, Self Control, and Indomitable Spirit. In this competency-based course, students will use these tenants as they learn the original taekwondo from an 8th Degree Black Belt Grand Master who is a nine-time U.S. Open Grand Champion. An emphasis will be placed on taekwondo basic movements, patterns, blocking, and kicking techniques. Using virtual reality, students will practice these taekwondo basic movements which have been designed to perfect their skills and to prepare them to test for their yellow belt. Upon completion of this course, students will be equipped with the knowledge and skills to earn a digital badge in the Art of Taekwondo and will be better prepared for their yellow belt.

CREDITS
1.0

COURSE CODE
CTE0010

INTRODUCTION TO WELDING

This competency-based course is designed to provide students with knowledge of the basic manufacturing processes, properties of metals, and safe operating skills needed to demonstrate use of equipment in oxy-fuel, shielded metal arc welding (SMAW), and gas metal arc welding (GMAW). The students will use virtual reality to perform oxy-fuel cuts, shielded metal arc welding (SMAW), gas metal arc welding (GMAW), and Gas Tungsten Arc Welding (GTAW). The students will perform welds using SMAW and GMAW to current industry standards. Welding symbols will be used to interpret detailed drawings used for fabrication. Upon completion of this course, the students will be equipped with work-related knowledge and the skills necessary for careers in welding and to earn a digital badge in Welding. Students will also be better prepared for the Welding certification exam.

CREDITS
1.0

COURSE CODE
CTE0011

CONSTRUCTION OCCUPATIONAL SAFETY AND HEALTH

Learning the safety basics is critical as construction sites can be hazardous. This competency-based course is designed to provide students with the basic knowledge to function safely on and around a construction site. Students will become immersed in topics that include an introduction to OSHA, foundations of safety, job safety, safety regulations, equipment safety, and much more! The students will use interactive videos and virtual reality to identify jobsite hazards and act upon the proper resolutions to correct the hazards. Upon completion of this course, students will be equipped with the knowledge and skills to earn a digital badge in Construction Occupational Safety and Health. They will also be better prepared for the certification exam.

CREDITS
1.0

COURSE CODE
CTE0012

EARLY CHILDHOOD EDUCATION

Early Childhood Education is a foundational course that prepares students for employment in early childhood education and services. In this competency-based course, students will gain knowledge, skills, attitudes, and behaviors associated with supporting and promoting optimal growth and development of infants, toddlers, and children. An emphasis will be placed on health and safety, cognitive language, and physical, social, and emotional development. Students will build on the developmental factors to develop stakeholder relationships and create a positive learning environment using an effective curriculum. Using virtual reality, students will practice curriculum planning, room arrangement, presenting a lesson, and engaging in a gross motor stretching activity to engage children. Upon completion of this course, students will be equipped with the knowledge and skills to earn a digital badge in Early Childhood Education. They will also be better prepared for the Early Childhood certification exam.

CREDITS
1.0

COURSE CODE
CTE0013

HVAC

This competency-based course provides the students with a solid foundation in HVAC. Students will engage in virtual reality and interactive videos designed to teach students the primary duties of an HVAC technician, including identifying parts, sequence of operations, troubleshooting, furnaces, and air conditioning. Additionally, students will examine basic electricity, heating, cooling, and fundamental copper and plastic piping practices. Students will learn worksite and personal safety components and basic mathematical operations throughout the course. Upon completion of this course, the students will be equipped with work-related knowledge and the skills necessary to earn a digital badge in HVAC and for careers in HVAC. They will also be better prepared for the Level I HVAC certification exam.

CREDITS
1.0

COURSE CODE
CTE0014

INTRODUCTION TO ANIMAL SCIENCE

This competency-based course introduces students to the scientific principles in animal behavior, the growth and development of animals, and basic animal body systems. The scientific principles are applied in animal management, proper nutrition, and disease prevention. Using virtual reality and interactive videos, students will practice basic livestock surgical procedures and injection techniques and will understand the digestive system and basic animal terminology. Upon completion of this course, students will be equipped with the knowledge and skills to earn a digital badge in Animal Science. They will also be better prepared for the Animal Science certification exam.

CREDITS
1.0

COURSE CODE
CTE0015

AGRICULTURAL SCIENCE

This competency-based course is designed as the foundational course for Agriculture. The course introduces the major areas of scientific agricultural production, research, and introductory skills and knowledge in agricultural science and agriculture technologies. Using virtual reality, students will practice crop leaf identification, determining genotypes and phenotypes, determining medication dosages, vehicle maintenance, and financial applications in agriculture. Upon completion of this course, students will be equipped with the knowledge and skills to earn a digital badge in Agriculture. They will also be better prepared for the Agricultural Science certification exam.

CREDITS
1.0

COURSE CODE
CTE0016

VETERINARY SCIENCE

The agricultural education course in Veterinary Science covers the basics of animal care. This competency-based course covers animal behavior, anatomical structures, animal body systems, safety, disease, parasites, feeding, animal control and restraint, and general animal care. Using virtual reality, students will practice equipment identification, standard veterinary procedures, filling prescriptions, and more. Upon completion of this course, students will be equipped with the knowledge and skills to earn a digital badge in Veterinary Science. They will also be better prepared for the Veterinary Science certification exam.

CREDITS
1.0

COURSE CODE
CTE0017

FINANCIAL LITERACY

This competency-based course provides students with a solid foundation in financial literacy. Students will engage in virtual reality and interactive videos designed to teach financial responsibility, decision making, money management, and investing. In addition, the course covers credit, debt, risk management, insurance, strategies for becoming an informed consumer, and much more. Upon completion of this course, students will be equipped with the knowledge and skills to earn a digital badge in Financial Literacy. They will also be better prepared to manage their finances effectively in the future.

CREDITS
1.0

COURSE CODE
CTE0018

HVAC II

This competency-based course is preceded by HVAC I. This course builds on the students' knowledge of electricity, heating, cooling, air distribution, equipment, and air quality. Using interactive videos and virtual reality, students will practice testing heating, ventilation, and air conditioning systems enabling the students to perform routine maintenance on these systems. Upon completion of this course, the students will be equipped with work-related knowledge and the skills necessary to earn a digital badge in HVAC II and for careers in HVAC. They will also be better prepared for the Level II HVAC certification exam.

CREDITS
1.0

COURSE CODE
CTE0019

ELECTRICAL

Electrical provides knowledge, fundamental skills, and systems used by an electrician. This competency-based course is designed to teach students the concepts of basic electricity and safety. Students will apply the knowledge and skills necessary to install switches, receptacles, dimmers, switch boxes, and more! Through interactive videos and virtual reality, the students will learn electrical circuits, transformers, conductors, resistors, and the tools used in the industry. Upon completion of this course, students will be equipped with the knowledge and skills to earn a digital badge in Electrical. They will also be better prepared for the Level I Electrical certification exam.

CREDITS
1.0

COURSE CODE
CTE0020

PLUMBING

This competency-based course introduces students to the foundational skills of the plumbing trade. Topics covered include general plumbing practices, drainage, traps, water systems, estimating, and storing materials used in the plumbing. Using interactive videos and virtual reality, students will practice interpreting construction drawings related to plumbing installation, joining pipes and fittings, installing fixtures, and plumbing service and repair. Upon completion of this course, students will be equipped with the knowledge and skills to earn a digital badge in Plumbing. They will also be better prepared for the Level I Plumbing certification exam.

CREDITS
1.0

COURSE CODE
CTE0021

ENROLL
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INTERESTED? TAKE THE FIRST STEP

Take the first step on your journey to your future. Begin the enrollment process by completing the form on our website. Please note that you will need to complete official enrollment documents with your parent/guardian in order to be fully enrolled at the school.

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