2022-2023 MPACT PROGRAM DESCRIPTIONS

Advertising Design: Advertising Design provides students with orientation experiences and laboratory safety for working in an advertising design studio environment. Topics of study include art history, art production, art criticism, design elements and principles, and materials and media utilized in the field of visual communication. Particular emphasis is placed on related academic skills. Instruction also includes information regarding various computer operations, applications and procedures, type styles, desktop publishing, layout and design techniques, mechanical production files, formats, and technology in the workplace.

Building Science and Construction: Courses in the building construction program will ground the trainee in the basic knowledge and principles of carpentry, masonry, concrete finishing, electrical work, HVAC, and plumbing. He or she will become skilled in different phases of a project from start to finish.

Electrical Technology: Electricians install electrical systems in structures; they install wiring and other electrical components, such as circuit breaker panels, switches, and light fixtures, and they follow blueprints, the National Electrical Code® and state and local codes. To prepare trainees for a career in the electrical field, this program utilizes NCCER's comprehensive, 4-level Electrical curriculum that complies with DOL time-based standards for apprenticeship.

Emergency & Fire Management Services: This program is for students who are interested in pursuing careers in emergency and fire management services. Courses provide students with information regarding career possibilities in firefighting, including instruction in application of firefighting techniques, emergency medical profession, and specialized public service jobs. Topics include forcible entry, tactical ventilation, fire control, loss control, fire origin and cause determination, firefighter survival, hazards, behavior, and identification of hazardous materials and weapons of mass destruction, and hazardous material operations, product control and personal protective equipment. Students who successfully complete Fire Science I and II and pass the certification tests will earn 160 of the 360 hours required to complete Alabama Fire College Firefighter I and II certifications.

Heating, Ventilation, Air Conditioning and Refrigration (HVAC/R): The increasing development of HVAC (heating and air-conditioning systems) technology causes employers to recognize the importance of continuous education and keeping up to speed with the latest equipment and skills. This program utilizes NCCER's curriculum that has been designed by highly qualified subject matter experts with this in mind. This curriculum is recognized by North American Technician Excellence (NATE) and presents theoretical and practical skills essential to your success as an HVAC installer or technician.

Health Science: The Health Science Program instructional content incorporates project-and-problem-based healthcare practices and procedures to demonstrate knowledge and skills fundamental to a variety of healthcare careers. Knowledge and skills are reinforced and

enhanced through participation in Career Technical Student Organizations and work-based learning opportunities that are age and grade appropriate.

Industrial Systems /Modern Manufacturing : Industrial maintenance is divided into two distinct pathways, electrical & instrumentation and mechanical. Industrial maintenance technicians are needed in every industry that uses machinery, from automotive assembly plants to computer manufacturers. Not only do they repair and maintain electrical instruments and equipment, but they also install and dismantle them. Every time a new appliance leaves a factory, or a new car rolls off the line, a skilled industrial maintenance technician played a role in producing it. This program utilizes NCCER curriculum and covers topics such as Fasteners and Anchors, Process Mathematics, Pneumatic Controls, Oxyfuel Cutting, Introduction to Piping Components, and Laser Alignment.

Modern Manufacturing is a CTE program designed to give participating student stakeholders the necessary training needed for gainful employment within Region 5' s manufacturing workforce. Students will earn certificates in OSHA 10, NCCER, and MSSC (certified production technician). There is a tremendous demand within the Region 5 manufacturing industry for this program.

Jobs for Alabama' s Graduates (JAG): Jobs for Alabama' s Graduates (JAG) identifies and provides educational support and success strategies for Alabama' s students. The mission of JAG is to help young people of great promise succeed in both school and on the job, leading to productive and rewarding careers. JAG partners eligible students with JAG Specialists who mentors, equips, and provides the support needed to graduate and succeed after high school.

Law Enforcement Services: This program is for students who are interested in pursuing careers in law enforcement and forensic science. The student will learn the role and responsibilities of a law enforcement officer; discuss relevant rules, regulations, and laws; and demonstrate defensive tactics, police patrol techniques, and CPR and First Aid procedures as used in emergency situations. Meeting and maintaining physical fitness standards for law enforcement is also emphasized in this course. The courses also focus on career opportunities, safety, history of forensic science, criminal investigation, forensic serology and DNA testing, forensic studies in anthropology, toxicology, fingerprinting, firearms, physics, and document examination.

Network Systems and Computer Services: This program is for students who are interested in careers that involve information technology security, network analysis, planning, and implementation, including design, installation, repair, maintenance, and management of network systems. Courses provide an overview of the knowledge and skills required in network and systems administration.

Welding and Metal Fabrication: Welding is a highly skilled industry that can take you places all over the world. From ladders to aircraft carriers, from NASCAR to national defense, and from the laboratory to sales and repair, the varied welding industry impacts virtually every industry. Technology is creating more uses for welding in the workplace. For example, new ways are being developed to bond dissimilar materials
and non-metallic materials, such as plastics, composites, and new alloys. Also, advances in laser beam and electron beam welding, new fluxes, and other new technologies and techniques all point to an increasing need for highly trained and skilled workers. This program utilizes NCCER's four-level curriculum covering topics such as Oxyfuel Cutting, Welding Symbols, and Stainless-Steel Groove Welds. NCCER's curriculum also correlates to the AWS standards and guidelines for an Entry Welder.

Dual Enrollment: Dual enrollment is designed for high school students who want to begin their college careers before they graduate. Students may pursue dual enrollment in college level courses concur-rently with high school courses and receive both high school and college credit upon success-ful completion of a dual enrollment course.
Dual enrollment offers several advantages. It can help offset college expenses for families, shorten the time it takes to earn a degree, and it helps qualified students reduce their course load per term when they attend a two-year or four-year college full time.