

2021-2022 MPACT PROGRAM DESCRIPTIONS

The Advertising and Design Major prepares students for new and emerging technology in all aspects of commercial art. There is an emphasis on industry-current technology, including digital illustration and imaging, web design and multimedia. Students will gain experience and knowledge in the design and development of promotional materials such as newspaper and magazine advertisements, posters, letterheads, corporate symbols, brochures, photography, and electronic media. Students will have the opportunity to earn industry credentials such as PrintED, Adobe Certified Associate and Adobe Photoshop.

The Building Science and Construction Major prepares students for many different kinds of construction activities, from building highways and bridges, to installing kitchen cabinets. Students will construct, erect, install, and repair structures and fixtures made from wood and other materials. Students will experience real-life application, decision-making, and problem solving opportunities through hands-on industry experience and project-based learning. Students will have the opportunity to earn industry credentials such as NCCER and OSHA 10 hour safety course.

The Electrical Technology Major prepares students to install electrical systems in residential and commercial structures. Students will learn to install wiring and other electrical components, such as circuit breaker panels, switches, and light fixtures. Students will receive knowledge and experience in both residential and commercial wiring, including blueprints, the *National Electrical Code*®, and state and local codes. Commercial applications include programmable logic controllers. Students will have the opportunity to earn industry credentials such as NCCER and OSHA 10 hour safety course.

The Fire Science and Public Safety Major gives students the knowledge and skills to prepare for careers in fire science, law, public safety, security, and corrections. Students in this major learn principles of public service, firefighting, fire prevention and control, consumer and contract law, emergency care procedures, personal finance, the responsibilities of first responders, criminal investigation techniques using forensic science, and effective communication. Students also receive hands-on experiences through partnerships with municipal and state law enforcement, fire departments, and emergency management agencies. Students will have an opportunity to receive CPR Certification, Check Point Certified Security Principles Associate Certification, Inspection and Testing Water-Based System I, and Computing Core Certification (IC3).

The Jobs for Alabama's Graduates (JAG) is a school-to-career program for at-risk high school youth. This program is to keep young people in school and provide work-based learning experiences that will lead to career advancement opportunities or to enrollment in a postsecondary institution that leads them to a rewarding career.

The HVAC/Mechanical Systems Major prepares students for careers as heating, air conditioning, and refrigeration technicians and installers. Students gain knowledge performing installations, repairs and maintenance on a variety of equipment including refrigeration, air conditioning, electric motors, heating units, heat pumps, hermetic compressors, light commercial furnaces, boilers, burners, intake and exhaust fans, economizers and humidifiers. Students will have the opportunity to earn industry credentials such as NCCER and OSHA 10 hour safety course.

The Information Technology Major prepares students for our technology-based environment through integration of basic technology skills with specialized training leading to technology certifications. Students are offered a wide range of subject areas crucial to future success in today's information economy. Industry-based network certifications and network systems architecture and design are included in student course work. Students will have the opportunity to earn industry credentials such as Comptia A+, Certified Network Computer Technician, CompTIA Network+, Microsoft Technology Associate (MTA) – Network Fundamentals, Microsoft Technology Associate (MTA) Windows Operating Systems.

The Industrial Systems Major prepares students for to install, program, troubleshoot, and repair a variety of industrial machinery used in manufacturing settings. Students study the basic operations common to production equipment used in industry today.

The Medical Science Major prepares students for our medical environment by giving them a skills-based education in medical and allied health professions, e.g. Physician, Nursing, Veterinarian, and Therapy. Students gain knowledge of the structure and function of the human body, medical terminology, the disease process, first aid, and CPR. Students will have hands-on experiences for continued knowledge and skill development. The course may be taught by different methodologies such as clinical rotation and career preparation learning.

The Welding and Metal Fabrication Major prepares students for a high-tech industry that can take you to 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 other industry. Students will gain knowledge and experience in SMAW, shielded metal arc welding, gas metal arc welding, gas tungsten arc welding, and flux cored arc welding. Students will also learn the safe operating procedures of OxyFuel cutting and plasma arc cutting. Students will have the opportunity to earn industry credentials such as NCCER and OSHA 10 hour safety course.