

Shelby County Area Technology Center

There will 5 programs available at the SCATC for the 18/19 school year. I have attached a list and course descriptions for the 5 programs.

Please review this information and if you are interested in attending this program as a sophomore please see Ms. Goldey at the guidance office.

***** Attendance, Behaviors and Academics** are major deciding factors for admittance into these programs.

Course Name:

Automotive Maintenance & Light Repair -- Sections A-B-C-D

Grades: 10-12

Credits: 4

Prerequisite: Students should begin with Section A then move through to B, C and D.

Course Description:

Automotive Maintenance & Light Repair A, B, C & D - These courses introduce the student to the principles, theories, and concepts of Automotive Technology, and include instruction in the maintenance and light repair of Engines, Brake Systems, Electrical/Electronic Systems, Suspension and Steering Systems, Automatic and Manual Transmission/Transaxles, and Engine Performance Systems. In all areas, appropriate theory, safety, and support instruction will be taught and required for performing each task, including proper care and cleaning of customers vehicles. The instruction will also include identification and use of appropriate tools and testing/measurement equipment required to accomplish certain tasks. The student will also receive the necessary training to locate and use current reference and training materials from accepted industry publications and resources, and demonstrate the ability to write work orders.

Course Name:

Introduction to Diesel Engines & Lab

Credits: 1

Grades: 10-12

Prerequisite: Students should begin with Introduction to Diesel Engines & lab.

Course Description:

This course introduces the fundamental concepts of the operation of two and four-stroke diesel and gasoline engines. Topics included are basic engine components and their functions, engine performance terminology, two-and four-stroke operation, combustion principles, and engine disassembly with basic hand tools.

Course Name:

Shielded Metal Arc Welding (SMAW)

Credits: 1

Grades: 10-12

Prerequisite: Students should begin with Shielded Metal Arc Welding.

Course Description:

Students learn the identification, inspection, and maintenance of SMAW electrodes; principles of SMAW; the effects of variables on the SMAW process to weld plate and pipe; and metallurgy.

Course Name:

Fundamentals of Machine Tools – A

Credits: 1

Fundamentals of Machine Tools – B

Credits: 1

Grades: 10-12

Prerequisite: Students should begin Fundamentals of Machine Tools A & B.

Course Description:

Fundamentals of Machine Tools A & B - These courses provide the basic principles needed for a solid foundation in machine tool technology. Areas and machines covered include shop safety, bench work, drill press, power saw, measurement, mills, and lathes.

Course Name:

Industrial Maintenance Electrical Principles Credits: 1
Industrial Maintenance Electrical Motor Controls Credits: 1

Grades: 10-12

Prerequisite: Students should begin with Industrial Maintenance Electrical Principles followed by Industrial Maintenance Electrical Motor Controls.

Course Description:

Industrial Maintenance Electrical Principles - This course introduces the theory of electricity and magnetism and the relationship of voltage, current, resistance, and power in electrical circuits. The course is designed to develop an understanding of alternating and direct current fundamentals. Students will apply formulas to analyze the operation of AC and DC circuits.

~~Basic fundamentals of the National Electric Code Standards. Students will have the opportunity to use basic electrical skills to design and construct electrical systems, design electrical systems from 12 volt to 120/240 volt, electrical systems varying from single phase to 3 phase systems. NCCER Core and Electrical Level 1 Industry Certifications are available.~~

Industrial Maintenance Electrical Motor Controls - This course addresses the diversity of electric motor control devices and applications used in industry today with safety and electrical lockouts included.

