

Automotive Technology

The Automotive Technology Program prepares students for challenging careers and advancement in the automotive, truck, diesel, equipment, ground mobility, and related industries.

Current trends indicate that the many industries surrounding ground mobility will continue to experience rapid changes and development for: improving performance, fuel efficiency, emission reduction, and passenger comfort and safety. Advancements in autonomous mobility systems, embedded technologies, industry business practices, and evolving consumer markets and regulations all point to the need for individuals with a thorough understanding of the technology systems, advanced diagnostics, and industry business operations.

The Automotive Technology Program provides extensive technical and industry business training to prepare the student for numerous career possibilities. Opportunities for students to become involved in industry research thrive at SIU Carbondale. The Program's broad industry relationships allow the student to not only learn the leading edge, but to help develop it while attending school.

Students develop skills and acquire knowledge through laboratory-based experiences with over 140 modern vehicles and pieces of equipment. The student should expect to spend about \$1,500 for a required basic tool kit consisting of metric tools and a digital multimeter. The Automotive Technology Program has achieved a master level accreditation by the Automotive Service Excellence (ASE) Education Foundation. Students are encouraged to complete their ASE certification process by taking the ASE certification exams.

The program's national advisory board is comprised of over 50 executives from the automotive, truck, and equipment industries who are charged with ensuring the program's curriculum and offerings are in alignment with industry needs. Members include representatives from General Motors Company; Ford Motor Company; Fiat Chrysler Automobiles; Toyota Motor Sales, U.S.A.; Inc., Nissan Motor Corporation; Mitsubishi Motors North America, Inc.; Cummins, Inc.; American Honda Motor Co., Inc.; NAPA; training providers; vocational directors; automotive dealerships; and wholesale/retail outlets.

Admission to Automotive Technology

Those interested in applying to the Automotive Technology Program are encouraged to begin the application process approximately one year in advance. Admission requirements to the applicant pool are the same as those to the University. After acceptance to the University and indicating Automotive Technology as the primary intended major, students are placed into the Automotive Technology Applicant Pool. No separate application is needed. Additional review of applicants will occur on predetermined dates for possible acceptance into the Automotive Technology major. The review criteria and dates are available from the program and are on the program's website: automotive.siu.edu.

The Automotive Technology Program welcomes students with A.A.S. degrees in automotive, diesel, truck, and equipment technology and management related programs from regionally accredited colleges. These students may qualify for the Capstone Option (see below for additional information).

Internship and Cooperative Programs

Automotive Technology majors can participate in paid internship and cooperative education experiences and may be able to earn credit toward graduation. Opportunities occur during all semesters (including the summer term), with some programs available for two sequential terms. These programs enrich the student's academic experience and are situated in various locations throughout the United States. Opportunities may be available with Fiat Chrysler Automobiles; Cummins Inc.; Toyota Motor Sales, U.S.A., Inc.; Eaton Corporation; General Motors Company; Robert Bosch Corporation; Ford Motor Company; Sherwin-Williams Automotive Finishes; Ally Financial-Motors Insurance Corporation; Camping World; General Services Administration (GSA) of the Federal Government; and other various other industry businesses.

Bachelor of Science (B.S.) in Automotive Technology

The Bachelor of Science Degree in Automotive Technology is designed to provide an educational environment for students to acquire the professional, research, and technical skills necessary for success in the automotive and related industries. The degree provides theoretical and practical hands-on application of knowledge through a combination of technical courses, industry business/management courses, computing, and communication courses. The flexibility of the curriculum accommodates the needs of both incoming freshmen and transfer students. Students have the option of focusing on multiple areas of emphasis, earning a minor, and possibly earning dual degrees. Students can adjust their focus in areas such as: automotive technical, automotive business operations, automotive management, automotive engineering, automotive technical education, automotive marketing, and automotive management.

The program can strengthen previous training. The Capstone Option is available to qualified Associate in Applied Science (A.A.S.) graduates entering the Automotive Technology bachelor's degree program as explained in this catalog. Automotive and truck manufacturers, component manufacturers and suppliers, government agencies, insurance organizations, educational institutions, training and curriculum organizations, and service providers are seeking four-year automotive technology graduates. The number of job titles in the area of automotive technology reflects the nature of a diverse and expanding field. Job titles include field service engineer, technical assistance specialist, serviceability engineer, diagnostic engineer, district parts/service manager, customer support manager, automotive instructor, account manager, fleet manager, service advisor, dealership service manager, technical training specialist, district sales manager, field executive, technical writer, and product engineer. These positions require a four-year degree with skills in communications, management and consumer relations, as well as technical knowledge.

B.S. Automotive Technology Degree Requirements

Degree Requirements	Credit Hours
University Core Curriculum ¹	39
Requirements for Major in Automotive Technology	81
Category II: Automotive Technology 100- and 200- level courses: (or Approved Substitutions) Select from: AUT 120, AUT 150, AUT 170, AUT 180, AUT 215, AUT 216, AUT 240, AUT 250 and AUT 280	36
Category III: Automotive Technology 300- and 400- technical courses: (or Approved Substitutions) Select from: AUT 330, AUT 340, AUT 355, AUT 360, AUT 370, AUT 390, AUT 410, AUT 440, AUT 445, AUT 450, AUT 455, AUT 470, AUT 480, AUT 490 ²	15
Category IV: Business/Management Courses (or Approved Substitutions)	15
Group I: Select one course from the following: AUT 310, TRM 316	
Group II: Select one course from the following: AUT 335	

Degree Requirements	Credit Hours
Group III: Select one course from the following: AUT 325, AUT 350, AUT 435, AUT 485	
Group IV: Select two courses from the following: AUT 325, AUT 345, AUT 350, AUT 380, AUT 435, AUT 460, AUT 485, ACCT 220, FIN 208, FIN 270, FIN 280, IMAE 307, IMAE 340, IMAE 442, IMAE 450, IMAE 465, IMAE 470A, IMAE 470B, IMAE 476, MKTG 304, MGMT 304, MGMT 350, MKTG 305, PSYC 323, TRM 361, TRM 362, TRM 364, TRM 383	
Category V: Support Courses selected from the following:	15
Any Category III course not previously taken can count here. Any Category IV Group III or Group IV course not previously taken. Credit from AUT 100, AUT 301, AUT 320, AUT 420, AUT 430, AUT 475, MGMT 318, MGMT 341, MKTG 329, MKTG 336, MKTG 401, TRM 361, TRM 362, OLID 460, OLID 462, OLID 463 or program approved substitutions	
Total ³	120

¹ Capstone = 30; UCC = 39.

² Consent of program. Credit toward the degree is either AUT 410 or AUT 490. Not both.

³ Note: Credit from all areas must total a minimum of 42 hours of 300- and 400-level courses. Degree requires a total of 120 credit hours.

Advanced Vehicle Systems and Diagnostics Minor

This minor provides a focused curriculum to prepare students seeking to enter the fields of vehicle diagnostic development, serviceability, engineering, and other technical product support operations with major automotive, truck and equipment manufacturers, parts and component suppliers, service and parts suppliers, or government agencies. This minor requires 21 semester hours of coursework selected from the following: AUT 330, AUT 340, AUT 355, AUT 360, AUT 390, AUT 440, AUT 445, AUT 450, AUT 455, AUT 470, AUT 490, or approved equivalents.

This minor is restricted to Automotive Technology majors. All course prerequisites are required prior to enrolling in each course. Students wishing to enter this minor must do so by contacting the Automotive Technology advisor.

Automotive, Truck, and Equipment Management Minor

This minor provides a focused curriculum to prepare students seeking to enter the fields of automotive, truck, and equipment management, marketing, planning, and support operations with major industry manufacturers, parts and component suppliers, service and parts suppliers, or government agencies. This minor requires 18 semester hours of coursework from AUT 310, AUT 325, AUT 335, AUT 345, AUT 350, AUT 435, and AUT 485.

This minor is open to all majors and is particularly well-suited for business, engineering, or technology related students interested in the automotive, truck, or equipment industries. All course prerequisites are

required prior to enrolling in each course. Students wishing to enter this minor must do so by contacting the Automotive Technology advisor.

Capstone Option for Transfer Students

The SIU Carbondale Capstone Option may be available to eligible students who have earned an associates degree or the equivalent. The Capstone Option reduces the University Core Curriculum requirements from 39 to 30 hours, therefore reducing the time to degree completion. If you have questions about what classes are needed to qualify for the Capstone Option, contact your community college advisor and the SIU Carbondale Automotive Technology Program.

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