

Automotive Technology

The Automotive Technology major prepares students for challenging careers and advancement in the automotive, truck, diesel, equipment, ground mobility, and related industries. The major is recognized both nationally and internationally for its quality, excellence, and prominence. Current trends indicate that the industry will continue to experience rapid change and development for improving performance, fuel efficiency, emission reduction, and passenger comfort and safety. In addition, advances in autonomous mobility systems, embedded technologies, industry business practices, and evolving consumer markets and regulations all point to a strong need for individuals with an understanding and passion for the industry.

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

The program offers three specializations that lead to the B.S. degree. Each provides extensive education and training to prepare individuals for the industry's many career possibilities. For the degree the student must complete one of the three specialization options:

- B.S. Automotive Technology – Advanced Technology and Diagnostics Specialization
- B.S. Automotive Technology – Automotive and Mobility Industry Management Specialization
- B.S. Automotive Technology – Technology and Management Specialization

Students admitted to the major are first placed in the Technology and Management Specialization and will have the opportunity to select and change to a different specialization upon advisement.

Within each specialization, students have the option of focusing their coursework on various areas, earning a minor, and possibly earning dual degrees. The flexibility of the curriculum accommodates the needs of both incoming freshmen and transfer students.

The program can strengthen and build upon previous education and training for transfer students who desire to enter the industry's exciting career possibilities. Transfer students from both technical and non-technical programs are encouraged to apply. Transfer students with a qualified Associate in Applied Science (A.A.S.) degree may be eligible for the Capstone Option which reduces the overall number of general education courses required for the bachelor's degree.

The program has achieved Master Level accreditation by the Automotive Service Excellence (ASE) Education Foundation, and students are strongly encouraged to complete their applicable (technical and/or non-technical) ASE examinations.

Opportunities for students to become involved in industry research thrive at SIU Carbondale (SIUC). In addition to outstanding teaching, we work hard to connect our faculty and corporate partners with our students so students contribute to some of the most advanced technical and business developments. SIUC students help develop the next leading edge and future of our industry.

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

Admission to Automotive Technology

Admission into the program is through a holistic secondary review admission process. This review allows the program to look beyond test scores and grades to evaluate each applicant. Those interested in applying are encouraged to begin the application process approximately one year in advance. Early application can provide the best chance for admission and for specific scholarship opportunities.

Admission requirements to the applicant pool are the same as those to the university. Once admitted to the university and having Automotive Technology as the primary intended major, students are placed

into the Automotive Technology Applicant Pool for secondary review. There is no separate application necessary for the program.

The secondary review is conducted utilizing submitted information on the SIUC application. The secondary review of applicants will occur on predetermined dates for possible acceptance into the program. The review criteria and dates are available from the School of Automotive and are on the School's website: automotive.siu.edu.

A basic tool kit consisting of metric tools and a digital multimeter is required for Carbondale campus students taking hands-on technology courses. Students taking the Technology and Management Specialization option or the Advanced Technology and Diagnostics Specialization option should expect to spend about \$1,500 for the required basic tool kit.

A course specific laboratory fee is assessed for enrolled students in specific technology-based courses. The fees are used to support the overall student experience and learning. Any course fees are identified in the course description.

Internship and Cooperative Education Opportunities

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 Stellantis, 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 various other industry organizations.

Graduates of the Automotive Technology program obtain professional, technical, and management positions with automotive, truck, and equipment manufacturers, parts and component suppliers, mobility system manufacturers and suppliers, vehicle sales, service, and parts retail organizations, government agencies, insurance and financial institutions, fleet management organizations, educational institutions, training and curriculum organizations, and other organizations related to the automotive and mobility industry.

Advanced Technology and Diagnostics Specialization

The Advanced Technology and Diagnostics Specialization option is designed 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 specialization incorporates a larger curriculum focus for the student to develop the knowledge, analytical, and problem-solving skillsets for diagnostics on advanced technology vehicle and mobility systems.

B.S. Automotive Technology – Advanced Technology and Diagnostics Specialization Degree Requirements

Degree Requirements	Credit Hours
University Core Curriculum Requirements ¹	39
Advanced Technology and Diagnostics Specialization Requirements	81
Category II: Automotive 100 and 200 level technical courses: (or Approved Substitutions) Select from: AUT	36

Degree Requirements	Credit Hours
120, AUT 150, AUT 170, AUT 180, AUT 215, AUT 216, AUT 240, AUT 250, AUT 280	
Category III: Automotive Technology 300 and 400 level technical hands-on diagnostic courses: (or Approved Substitutions) Select from: AUT 330, AUT 340, AUT 355, AUT 360, AUT 390, AUT 440, AUT 445, AUT 450, AUT 455, AUT 470, AUT 490.	21
Category IV: Business/Management Courses (or Approved Substitutions)	15
Group I: Select one course from the following: AUT 310, TRM 316	
Group II: AUT 335	
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 415, AUT 435, AUT 460, AUT 485, ACCT 220, FIN 208, FIN 270, FIN 280, IMAE 307, IMAE 340, IMAE 376, IMAE 442, IMAE 450, IMAE 465, IMAE 470A, IMAE 470B, IMAE 476, MKTG 304, MKTG 305, MKTG 350, MGMT 304, MGMT 350, PSYC 323, TRM 361, TRM 362, TRM 364, TRM 383	
Category V: Support Courses selected from the following:	9
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 320, AUT 370, AUT 410, AUT 420, AUT 430, AUT 475, AUT 480, MGMT 318, MGMT 341, MKTG 329, MKTG 336, MKTG 401, TRM 361, TRM 362, WED 460, WED 462, WED 463, or School approved substitutions ²	
Total ³	120

¹ Capstone= 30; UCC= 39.

² Consent of School. 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.

Automotive and Mobility Industry Management Specialization

The Automotive and Mobility Industry Management Specialization option allows the student to gain industry-focused knowledge in its business operations and management processes. It combines

product knowledge with a solid understanding of current industry practices, challenges, and solutions. Coursework in areas such as industry financial, regulatory, customer retention, sales, and retail operations are emphasized.

B.S. Automotive Technology – Automotive and Mobility Industry Management Specialization Degree Requirements

Degree Requirements	Credit Hours
University Core Curriculum Requirements ¹	39
Automotive and Mobility Industry Management Specialization Requirements	81
Technology Core: Select from: AUT 100, AUT 120, AUT 150, AUT 170, AUT 180, AUT 215, AUT 216, AUT 240, AUT 250, AUT 280, (or Approved Substitutions)	9
Automotive and Mobility Industry Management Core:	36
AUT 310, AUT 325, AUT 335, AUT 350, AUT 380, AUT 415, AUT 435, AUT 460, AUT 485, (or Approved Substitutions)	27
AUT 420 or AUT 430 combined	9
Approved Career Support Core: Support courses from any AUT course not previously taken, approved career coursework from and Associate in Applied Science degree (A.A.S.), ACCT 220, FIN 208, FIN 270, FIN 280, IMAE 307, IMAE 340, IMAE 376, IMAE 442, IMAE 450, IMAE 465, IMAE 470A, IMAE 470B, IMAE 476, MKTG 304, MKTG 305, MKTG 329, MKTG 336, MKTG 350, MKTG 401, MGMT 304, MGMT 318, MGMT 341, MGMT 350, PSYC 323, TRM 361, TRM 362, TRM 364, TRM 383, WED 460, WED 462, WED 463, or School approved substitutions	36
Total ²	120

¹ Capstone= 30; UCC= 39.

² 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.

Technology and Management Specialization

The Technology and Management Specialization option is where students are first placed upon entering the degree program. Students will have the opportunity to select and change to a different specialization upon advisement.

The Technology and Management Specialization option is designed to provide an educational environment for students to acquire the professional, research, and technical skills necessary for success. It provides a balance of theoretical and hands-on application of knowledge through a combination of

technical courses and industry-focused business/management, computing, and communication courses. Students develop skills and acquire knowledge through laboratory-based experience.

B.S. Automotive Technology – Technology and Management Specialization Degree Requirements

Degree Requirements	Credit Hours
University Core Curriculum Requirements ¹	39
Technology and Management Specialization Requirements	81
Category II: Automotive 100 and 200 level technical courses: (or Approved Substitutions) Select from: AUT 120, AUT 150, AUT 170, AUT 180, AUT 215, AUT 216, AUT 240, AUT 250, AUT 280	36
Category III: Automotive 300 and 400 level technical courses: (or Approved Substitutions) Select from: AUT 330, AUT 340, AUT 355, AUT 360, AUT 370, AUT 390, AUT 410 or AUT 490, AUT 440, AUT 445, AUT 450, AUT 455, AUT 470, AUT 480 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: AUT 335	
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 415, AUT 435, AUT 460, AUT 485, ACCT 220, FIN 208, FIN 270, FIN 280, IMAE 307, IMAE 340, IMAE 376, IMAE 442, IMAE 450, IMAE 465, IMAE 470A, IMAE 470B, IMAE 476, MKTG 304, MKTG 305, MKTG 350, MGMT 304, MGMT 350, 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 320, AUT 420, AUT 430, AUT 475, MGMT 318, MGMT 341, MKTG 329, MKTG 336, MKTG 401, TRM 361, TRM 362, WED 460, WED 462, WED 463, or School approved substitutions	

Degree Requirements	Credit Hours
Total ³	120

¹ Capstone= 30; UCC= 39

² Consent of School. 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.

Automotive and Mobility Industry 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 credit hours of coursework from AUT 310, AUT 325, AUT 335, AUT 345, AUT 350, AUT 380, AUT 415, AUT 435, AUT 460, 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 a School of Automotive academic advisor.

Capstone Option for Transfer Students

The SIUC 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 SIUC Automotive Technology Program.

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