

AUTO TECH, AUTONOMOUS VEHICLE, CERTIFICATE OF TECHNOLOGY



Program Information

With automotive technology rapidly developing each year and becoming increasingly complex, the industry demand for qualified Junior (Jr.) Fleet Technicians is growing exponentially. At San Jacinto College, students receive real-world experience with hands-on training and education to excel and become successful in the autonomous automotive field. Students study the multiple areas of Automotive Service Excellence (ASE) to become properly trained, certified, and employed at an automotive service facility.

The San Jacinto College Autonomous Vehicle Certificate of Technology program:

- Offers lectures and in-class demonstrations, combined with practice lab skill sets, which better prepare and train students to transition into the workforce;
- Provides students with the opportunity to work in the automotive field while attending school in the *Earn While You Learn* program;
- Teaches students the theory of operation, component identification, and diagnostic procedures, all of which helps develop critical thinking skills necessary for proper vehicle diagnostics along with better preparation for passing the ASE exams; and
- Provides students with the hands-on experience needed for real-world experience, development, and training.

Career Opportunities

According to *Economic Impacts of Autonomous Delivery Services in the US*, between 2020 and 2025, autonomous vehicle use will create over three million jobs, stimulate the US economy by over four trillion dollars, and significantly decrease auto crash injuries and CO₂ emissions, all while saving consumers over 20 billion hours of time. At San Jacinto College, you can play a role in these incredible gains! After graduation, students will have several exciting career avenues from which to choose, including:

- autonomous Jr. Fleet Technicians,
- service technicians,

- service advisors,
- service managers,
- parts counters, and
- car sales.

Earning Potential

Autonomous Vehicle Technicians: \$37,440¹

¹ Source: Nuro estimated annual starting salary, 2023

For more information, students may call Tommy Hendricks, Program Coordinator at 281-998-6350, x1150 or thomas.hendricks@sjcd.edu or Kay Richardson, Department Chair at 281-991-2608 or kay.richardson@sjcd.edu.

Campuses

Central Campus

South Campus

Information

San Jacinto College can provide students with the training they need in the Autonomous Vehicle Certificate of Technology, which prepares individuals for employment as a Junior (Jr.) Fleet Technician.

Today's automobiles are complex with onboard computers and extensive electronics, e.g., vehicles are equipped with satellite guidance systems powered as a hybrid vehicle and/or battery electric vehicle (BEV) with the unique characteristics of hybrid and/or BEV systems. Upon completing this curriculum, students should be prepared to take multiple Automotive Service Excellence (ASE) Certification exams and be ready for full-time employment in the automotive service industry. Students interested in the Autonomous Vehicle Certificate of Technology must meet with the FAST coordinator or Department Chair before registering for automotive classes.

Students enrolling in San Jacinto College programs with external learning experiences (e.g., internships), will be required to comply with industry policy and procedure requirements. Failure to meet the industry requirements mandated by automotive service centers may limit a student's ability to complete the credential and/or delay the student's graduation date.

Likewise, students enrolling into San Jacinto College programs with external learning experiences (i.e., clinical, practicum, externship, cooperative, etc.) will be required to comply with the immunization requirements and policies of the clinical/external learning sites to engage in all clinical/external learning experiences. Vaccination requirements at clinical/external learning sites are implemented pursuant to the independent authority of such facilities and are not mandated by San Jacinto College. Failure to meet the immunization requirements mandated by clinical/external learning sites may limit a student's ability to complete the program and/or may delay the student's graduation date. San Jacinto College does not process exemptions, and students should address potential vaccination exemptions directly with the clinical/external learning site.

Plan of Study

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First Year

First Term		Credits
ITSC 1305	Introduction to PC Operating Systems	3
ITSC 1307	UNIX Operating System I	3
AUMT 1407	Automotive Electrical Systems	4
AUMT 2421	Automotive Electrical Diagnosis and Repair	4
AUMT 2188	Internship - Automotive Technology	1
Credits		15

Second Term

RBTC 1305	Robotic Fundamentals	3
AUMT 1416	Automotive Suspension and Steering	4
CETT 1331	Programming for Discrete Electrical Devices	3
AUMT 2407	Hybrid and/or Battery Electric Vehicle (BEV) Systems Diagnostics	4
AUMT 2288	Internship - Automotive Technology	2
Credits		16

Summer Year One Term

RBTC 1301	Programmable Logic Controllers	3
AUMT 1345	Automotive Climate Control Systems	3
AUMT 2289	Internship - Automotive Technology	2
Credits		8
Total Credits		39

Capstone Experience: AUMT 2289 Internship - Automotive Technology