

RIVIAN

MSAT RIV-1 Syllabus



Program Description

The Rivian MSAT Program is tailored for individuals with limited automotive experience who demonstrate mechanical aptitude and possess transferable skills from related fields. This intensive 12-week course provides foundational knowledge in automotive systems and the skills necessary to succeed as a RIV-1 Service Technician.

During the course, students will develop the skills required to perform express repairs while building an understanding of essential automotive concepts. Topics include an Introduction to Rivian, Workplace Safety, Quality Standards, Service Center Operations, Tools & Torquing, Body Fitment, Tire R&R, Vehicle Subsystems (Low and High Voltage Familiarization), and PDI Support.

Students will attend classroom instruction for 5 weeks, then transition to 7 weeks of field work at a local service center.

Program Prerequisites / Qualifications

- Successful Pre-screen and Interview
- Basic automotive or trades experience
- Relevant certificates/courses (preferred)

Modality

- Face-to-Face Instruction
- Lab Work
- Field Support

Materials and Supplies

- Rivian provided laptop
- Rivian provided uniform
- Notepad and pen

Schedule

Classroom Instruction Weeks:

Monday - Friday: 8:00 AM - 4:00 PM

Service Support Weeks:

Monday - Friday: 8:00 AM - 5:00 PM

Course Texts

- All course materials will be provided by Rivian.



Course Outcomes

By the end of the 12-week program, students will be able to:

Advanced Driver Assistance System	Demonstrates understanding of the ADAS features and operation
RivianOS and Technical Resources	Understands how to evaluate the validity of available resources
	Demonstrates understanding of where to access wiring diagrams and connector locations
	Demonstrates understanding of utilizing service procedures pre- and post-repair
	Demonstrates knowledge of technical resources (i.e. SharePoint, RivianOS, Confluence, Slack)
	Follows service manual repair instructions
	Follows tool use instructions
	Can send an OTA update to a vehicle
	Can demonstrate where to find acronyms list
Safety Requirements	PPE requirements (wear safety glasses, safety shoes, proper shop attire)
	Situational awareness (aware of surroundings when driving and working)
	Electrical hazard awareness (uses barriers and signage to inform non-technical personnel of risks, and potential hazards)
	Adheres to EH&S standards
High Voltage Architecture	Demonstrates understanding of the risks involved while working on High Voltage systems
	Consistently wears appropriate PPE required to work safely on High Voltage
	Can perform an inspection on PPE and required tools
	Can perform HV lockout & Tagout according to Rivian guidelines
	Can explain where to find most updated working procedures
	Can show where to find the high voltage glove process documentation and explain when gloves should be tested and re-certified



Rivian Product Knowledge	Can demonstrate understanding of different vehicle configurations and models
	Understands that only Rivian-approved accessories and parts should be installed
Thermal System	Can perform a coolant drain and fill to the Service Manual procedure
	Has 609 certification and can perform safe handling of refrigerant
Chassis	Can explain the basic functions and operation of: Air suspension / TPMS
	Mount and balance tires
	Can demonstrate proper use of approved electronic parking brake tooling
	Can diagnose vibration-related concerns
	Demonstrates understanding of wheel alignment angles and tire wear***
Low-Voltage Electrical	Can jump and/or replace 12v batteries/Recover dead vehicles
	Demonstrates understanding of different key types and vehicle access operation
	Can define Ohm's Law.
	Can identify the proper requirements for a multimeter (Rivian-approved meters).
	Demonstrates how to check proper operation of multimeter and additional test equipment (test leads, back probes).



Grading & Attendance Policy

To continue in the program, and to be considered for a position with Rivian, each student must attain a minimum 80% average in each of the 3 distinct categories listed below.

Labs	60%	Students will complete graded labs throughout the course
Written Exams	20%	Seven weekly assessments and one final exam.
Compass Values	20%	Students will be evaluated on their adherence to Rivian's Compass Values.

For example, if a student has a grade of 70% for labs, 95% for written exams, and 100% for compass values, their overall score in the class would be 81%. However the sub-par lab grade (below 80%) would likely preclude them from being considered for a position with Rivian.

Progress Reports

At the conclusion of each module ("Hike"), students will receive one-on-one feedback to ensure they understand their standing in the course. Instructors will work closely with those struggling to develop improvement plans and get them back "on-trail."

- **On-trail:** The student meets or exceeds the required proficiency.
- **Off-trail:** The student falls below the required proficiency in any category. Each student is allowed to go off-hike once during the program, and extra support will be provided to help them return to on-hike status.

Classroom Schedule

- **Hike 1:** Introduction to Rivian, safety, documentation, best practice and vehicle lifting.
- **Hike 2:** Rivian resources, tooling and 5S.
- **Hike 3:** Shop equipment, tire rotations, introduction to suspension and brakes.
- **Hike 4:** Alignment concepts and ADAS.
- **Hike 5:** Introduction to low voltage, 12V battery Recovery and replacement
- **Hike 6:** High voltage safety and 609 refrigerant certification
- **Hike 7:** PDIs and vehicle inspection, body fitment and service center operations.

