

Course Outline - Engine Fault Diagnostic – 10 Weeks

Week 1 – Classroom	Workshop
<ul style="list-style-type: none"> • Induction - College Polices & Facilities – Health & Safety – Fire Alarm • Workshop Policies – Health & safety (PPE) • Staff and student introductions • Course Calendar – Course Overview • Log In Details – College PC – Teams – LJ Create • OBD – History and Modern – Overview 	<ul style="list-style-type: none"> • Health & Safety - PPE • Tour • Workshop Tools and Equipment

Week 2 – Classroom	Workshop
<ul style="list-style-type: none"> • Introduction to auto electrics • Basic auto electric components and their function • Making sense of automotive wiring diagrams • CAN-Bus – Introduction <p>Auto-electrics incl. CAN-Bus Phase Test</p>	<ul style="list-style-type: none"> • Use of Multimeter – Measuring a range electrical values of a circuit

Week 3 – Classroom	Workshop
<ul style="list-style-type: none"> • Engine 4-stroke cycle • Engine – Mechanical condition inspection methods and procedures <p>Engine Mechanical Phase Test</p>	<ul style="list-style-type: none"> • Cylinder compression test • Cylinder leakage test

Week 4 – Classroom	Workshop
<ul style="list-style-type: none"> • Ignition system layout, components, and operation – (Si engine) • Ignition circuit and wiring diagram. <p>Ignition system Phase Test</p>	<ul style="list-style-type: none"> • Ignition system component and wiring testing.

Week 5 – Classroom	Workshop
<ul style="list-style-type: none"> • Induction system layout, components, and operation <p>Induction System Phase Test</p>	<ul style="list-style-type: none"> • Induction system component and wiring testing.

Week 6 – Classroom	Workshop
<ul style="list-style-type: none"> Fuel system layout, components, and operation - (Si engine) 	<ul style="list-style-type: none"> Fuel system component and wiring testing.

Week 7 – Classroom	Workshop
<ul style="list-style-type: none"> Emission Control Systems (Oxygen sensors – Catalytic converters – EVAP – EGR) <p>Fuel and Emission Control System Phase Test</p>	<ul style="list-style-type: none"> Emission control system, components and wiring testing.

Week 8 – Classroom	Workshop
<ul style="list-style-type: none"> Diesel engines and diesel fuel systems operation Emissions – DPF <p>Diesel System Phase Test</p>	<ul style="list-style-type: none"> Diesel fuel system component and wiring testing.

Week 9 – Classroom	Workshop
<ul style="list-style-type: none"> Review all systems. <p>End Assessment</p>	<p>Practical Test - Fault finding</p>

Week 10 – Classroom	Workshop
<ul style="list-style-type: none"> Assessment Re-take Course review - Q&A - Feedback 	<p>Practical Test – Re-take</p>